

CITY OF DUNDEE

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# REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

YEAR ENDING 31<sup>ST</sup> DECEMBER, 1931

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DUNDEE:

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*Public Health Department,  
Dundee, August 1932.*

The Lord Provost, Magistrates and Town Councillors  
of the City of Dundee.

Gentlemen,

I have the honour to submit the Annual  
Report of the Public Health Department for the year  
1931.

The year has been a very full one, and I take this  
opportunity of thanking my colleagues in the Depart-  
ment and all members of the staff for their valuable  
co-operation and assistance throughout the year.

I am, Gentlemen,

Your obedient Servant,

*W. R. Burgess.*

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*Medical Officer of Health.*

### Summary of Vital Statistics.

The following is a summary of the principal statistics for the years 1929, 1930, and 1931 :—

	1929.	1930.	1931.
Population ....	167,109	166,495	176,006
Number of Deaths (corrected) ....	2,670	2,661	2,445
Death-rate per 1,000 Population (corrected)	16·0	16·0	13·9
Deaths of Infants under 1 year ....	355	397	317
Infantile Death-rate per 1,000 Births ....	102	113	92
Marriage-rate per 1,000 Population ....	7·7	8·1	7·2
Number of Births registered (corrected) ....	3,486	3,506	3,431
Birth-rate per 1,000 Population ....	20·9	21·1	19·5
Illegitimate Birth-rate per 100 Births ....	7·6	7·9	7·4
Number of Deaths from Pulmonary Tuberculosis ....	130	126	128
Death-rate per 1,000 from Pulmonary Tuberculosis ....	·78	·76	·73
Death-rate from all forms of Tuberculosis ....	1·05	1·05	·95
Death-rate from the Principal Epidemic Diseases ..	·38	·78	·84
Deaths from Enteric Fever ....	2	1	2

# Annual Report—1931.

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So far as one can judge from the mortality statistics, the health of Dundee was very satisfactory during the year 1931. Several records were established.

The death-rate at all ages and from all causes was 13·9 per 1,000 population, the lowest figure ever recorded for the city. The death-rate in 1929 and also in 1930 was 16. The nearest approach to the 1931 figure occurred in 1923, with a rate of 14·7.

The infantile death-rate was 92 per 1,000 births. This is the lowest ever recorded for the city, the previous best being 98 in the year 1923.

The death-rate from all forms of tuberculosis per 1,000 population was ·95, the lowest figure yet reached, the next lowest being 1·05 per 1,000 in each of the three years 1928, 1929, and 1930. This death-rate is for the first time below 1 per 1,000. The pulmonary tuberculosis death-rate also showed a record, namely, ·73 per 1,000 population compared with ·76 the previous year.

Another record of a somewhat different nature is the birth-rate, which was 19·5—the lowest, except for the war years. The marriage-rate was 7·2 and the lowest also except for the war years.

A large number of tables showing death-rates, etc., from various diseases is included in the statistical section of this report and comments are made in the text where these are considered necessary.

The city was comparatively free from infectious diseases throughout the year.

The administrative side of the work of the department was very heavy. This was due to the very extensive reorganisation necessary as the result of the taking over in 1930 of the medical services formerly under the control of the Education Authority, the Parish Council, and the District Board of Control.

The Public Health Office was transferred in May from 17 West Bell Street to much more satisfactory premises at 9 West Bell Street. The new offices are rented from the Public Assistance Department, the Director of which has been most helpful and obliging.

The scheme of reorganisation involving the Maternity Service, Infant and Pre-School Child Welfare, School Medical Service, and the Out-Door Nursing Service is gradually being put into operation.

Special attention is directed to the section of the report by Dr. Tuach Mackenzie dealing with Westgreen Mental Hospital. Not only does he give a full account of the year's work at the hospital but he describes very clearly the present-day outlook on the control of mental disease. His observations are of particular interest to members of the Town Council, as they have only recently become responsible for the care of mental disease and mental deficiency

In May of this year a meeting was held in Edinburgh between representatives of the Scottish Committee of the British Medical Association and representatives of the larger local authorities in Scotland. The meeting was convened "to discuss the general question of the schemes of local authorities for providing medical services and especially the question of the method of arranging for domiciliary medical attendance for persons for whom authorities have a statutory responsibility." Mr Jeffrey, Secretary, Department of Health for Scotland, who was in the chair, stated in his opening remarks that the subject to be discussed was a very important one and that although in these times of stringent economy there was not likely for some time to be any great development in the statutory health services, these services, which were vital to the nation had to be carried on and in carrying them on it was necessary to secure that nothing should be done to prejudice what may be the ultimate development. Dr. Elliot Dickson, Chairman of the Scottish Committee, said that the statistics of the deficiencies of school children showed what had to be done to prevent illness, and that he agreed with the late Dr. Parlane Kinloch in the view that the only way of dealing with these conditions is to train the family doctor to see that they do not occur. He admitted that in some directions the family doctor was not so well fitted as specialised whole-time medical officers, e.g. in routine school medical examination or tuberculosis work; but he thought that generally the family practitioner was qualified by training and experience to carry out the work of the different schemes of the local authorities better than the whole-time medical officers. Under the family practitioner the work would not be so liable to run in watertight compartments.

The meeting was intended merely as a preliminary one to open the subject and no decision was arrived at beyond that of arranging the constitution of a small informal committee representative of the interests involved to explore the question of co-operation between private medical practitioners and the local authorities.

There can be no doubt that the present is a very opportune time to consider this subject. Although there is not likely to be any great development in the statutory health services for some time, that fact provides us with an excellent opportunity to review the situation, to examine what has been done, and to consider what might be done in the future. Although there may be no immediate prospect of additional health service, we have still a great deal to do under the provisions of the Local Government (Scotland) Act, 1929, and other existing Statutes, and unless we move warily there is great danger of doing things which may "prejudice what may be the ultimate development." Even if it were accepted that the work of local authorities carried out by whole-time medical officers is liable to run in watertight compartments, I do not think that the "whole-time" element is the important factor. On the other hand, I feel sure that were many of the present whole-time posts filled by part-time medical practitioners, efficient administration would be much more difficult, and the tendency to routine would probably be increased. No doubt the somewhat spasmodic growth of the public health service during the last 25 years, by the appearance of one scheme after another, each scheme dealing with one section of the population defined by age or disease, would tend to encourage routine, unless corrected by efficient administration. I do not suggest that medical practitioners in private practice could not undertake much of the work now being carried out by whole-time medical officers, but in my view it cannot be done efficiently if only a few medical practitioners are engaged in the work. The whole organisation would have to be re-designed, and all the general practitioners working in a district included in the new machine. I am satisfied that a reorganisation of the nature suggested must take place in the not very remote future if we are to make progress, and care must be taken at the present time to see that new difficulties are not created. The obstacles are numerous enough already.

I am satisfied that we have reached the maximum so far as whole-time medical staff is concerned, at any rate in certain of the local authorities' activities. Speaking particularly of child welfare work, I am, like many others, hopeful that at some future time—the immediate future or it may be in the remote future—the National Health Insurance Scheme will be extended to cover dependants, including children and all others below a certain economic level, the new work to be carried out by insurance medical practitioners as at present. I hope, however, that the kind of work expected from the panel practitioner will be somewhat different and that he will do for all children under 5 years of age what our child welfare centres of to-day are attempting to do for a limited number of children. I cannot look forward with anything



like complete satisfaction to the extension of the National Health Insurance Scheme to children, where the child merely gets free medical advice and medicines when the doctor is sent for. I would hope that the practitioner of the future will have charge of the routine examination of all children, examinations being carried out at prescribed periods in the child's home or in the doctor's consulting room. The doctor would be responsible for all the children on his panel and would not only examine but would advise in regard to the proper nutrition of each of his charges. I use the word "nutrition" in its most comprehensive sense as implying not merely food, but fresh air, sunshine, clothing, exercise, recreation. Nurture is perhaps a better word. There is now a mass of new knowledge in regard to nutrition which is capable of practical application and which is awaiting application. The new knowledge is getting more and more complete. I cannot see how it can be properly used unless every doctor's consulting room becomes a child welfare centre and he becomes a part-time public health official. I cannot see how we can make much more progress with a few whole-time medical officers and a few clinics. If the field-work is done by the general practitioner then only the minimum whole-time administrative staff would be required and the child welfare centres would be staffed by possibly part-time specialists, who would carry out special examinations and special treatments of the sort which are not possible in the home or in the doctor's consulting room. The tuberculosis dispensary and the venereal disease treatment centres would continue to be staffed by specialists whose services would be available to the medical practitioner in carrying out his work under the national scheme.

An essential preliminary to such a scheme would be a change in the outlook of the general medical practitioner. The recognition and treatment of disease dominates his mind meantime. Preventive medicine must find an increasingly important place and must ultimately predominate. He must be able to instruct the people under his care how to keep well, as well as how to get well. Unless he develops a proper conception of his new duties, he could not carry out his work properly. It would become a routine uninteresting to himself and worthless to the community. The inculcation of the new outlook must be begun with the medical student, who must be trained to have a proper conception of his future work. I would like to see, for example, certain branches of physiology made one of the subjects of the final examination in medicine. In my view, physiology and obstetrics are the most important preventive medicine classes. I would like to see the teachers of anatomy and physiology become members of the staffs of our hospitals, and I would also like to see the teachers of

physiology become the visiting medical officers to institutions for the care of healthy children, such as creches, day nurseries, nursery schools, and children's homes, and I feel sure that in the future medical schools will cluster round these institutions as they now cluster round hospitals for the sick.

These comments regarding possible future developments of the official health services are applicable mainly to the infant from birth until school age is reached. Concentration of effort is most needed at that age period as evidenced by the high infantile mortality and the extraordinary number of children showing defects at the first routine medical examination after commencing school life. Further, it is likely to be most fruitful because the majority of the conditions causing infantile deaths and most of the defects found in the new school entrants are preventible. But they can only be prevented by constant close observation of each individual infant and child and careful guidance of the parent or guardian regarding nurture. The child welfare work already done has shown the possibilities and proved the need for a wider application so that all infants and all children up to five years of age may benefit. This can only be done if all practising doctors share in the work. Modification would be necessary to cover the equally important pre-natal and intra-natal periods. The midwife as well as the specialist would be associated with the general practitioner at these stages, but the same organisation would be used. The position in regard to the scheme of medical examination and treatment of school children is rather different. Although the health of school children is essential to the general health of the community the scheme was introduced primarily to enable children to take full advantage of the educational facilities provided for them. The scheme has therefore become an integral part of the educational system. It is now also recognised as a part of the public health service. Attendance at school provides an excellent opportunity for routine examination, an opportunity which is not available for the infant and pre-school child and which cannot be replaced by a few child welfare centres. This opportunity must be taken full advantage of and that can only be done if full-time medical officers with special skill and experience in school hygiene are engaged in the work. Otherwise the educational system would be liable to be seriously disturbed. Further, the duties of the school medical officer go far beyond mere routine medical examination and treatment of the individual child. School environment has a very definite influence on the health of the child, and the education authority must have the services of a medical official with special experience in that branch of preventive medicine. While that is so, it is very desirable that the general practitioner should be included

in the scheme. He must be permitted to carry out the treatment of the conditions affecting school children, which can properly be carried out in his consulting room or in the child's home. The clinic system must continue, but it will provide for special examinations and special treatments which can only be performed at properly equipped and properly staffed centres. It might be possible at some future date for a national health insurance scheme worked by general practitioners to include children of school age so that these children could be kept under observation not only at school but also in their own homes. The work under the scheme outwith the school buildings would be allocated to the general medical practitioner, who would follow the lines suggested for the pre-school child. After all, the school child spends only a part of his life at school, and although he may be well sheltered there he is exposed to many risks at home and elsewhere, which may counteract any benefits derived from the precautions taken at school.

Any forecast of the future developments of the medical services in this country may be very different from what will actually take place, but it is very necessary that some sort of plan should be in our minds. It is wise to look well ahead, even although the view may be rather dim. In reorganising the public health department in Dundee, following on the Local Government (Scotland) Act, 1929, it has been assumed that some such scheme as that outlined will ultimately emerge, and everything has been done only after very careful consideration, not only of the immediate needs but also of future possibilities. As recorded in last year's Annual Report, we have formed one central staff of 26 health visitors by the amalgamation of the former child welfare health visitors, school nurses, tuberculosis nurses, and venereal diseases nurses. The arrangement is proving very satisfactory. Apart from any personal advantages which may accrue to the health visitor herself in having more variety and interest in her work, there are distinct advantages to the community in economy of time and avoidance of confusion in the minds of the people under the care of the health visitors and in the minds of medical practitioners. Nowadays, the health visitor has charge of a district in the town and she pays all the visits necessary within that district for purposes of child welfare, school hygiene, tuberculosis, venereal disease, and the ordinary infectious diseases. Further, if in the future child welfare work is carried out by doctors in general practice, the central staff of health visitors will be ready to work with the doctors and assist them in carrying out their new duties. The reorganisation of the outdoor nursing service of the department is therefore being carried out not only to meet immediate needs but also to fit in to any future development.



The child welfare centres, both central and district, are being reorganised and in certain cases reconstructed in order that they may be available for children both of pre-school and school ages. The special school clinic in Castle Street is being dispensed with and school children requiring treatment which properly comes within the province of the school medical services will receive such treatment at any of the six child welfare centres. These centres are used for child welfare purposes in the fullest sense of that term, covering as they do children of all ages from the pre-natal period until school leaving age is reached. This arrangement meets the immediate needs in a most satisfactory fashion. At the various centres routine examination of those infants and pre-school children who can be persuaded to attend is carried out as well as the treatment of minor maladies, but future possibilities have been kept in mind, and the centres can very easily be reserved for special examinations and special treatments under a more complete scheme.

In regard to the domiciliary treatment of the sick poor, the arrangements existing in Dundee prior to May 1930 are still in operation, and there is no proposal to make any change meantime. Certainly there is no intention of having the work done by whole-time officials. Such an arrangement would in this area be very clumsy and economically unsound. In any case, it would appear to me to be work which definitely comes within the domain of the doctor in general practice. The duties are practically the same as those carried out by the panel medical practitioner and can be performed by him in his stride. It would suit my department admirably if it were possible to absorb the comparatively trifling domiciliary poor law service into the larger national health insurance scheme, but there would appear to be considerable difficulties in fitting that in, mainly because of the changing personnel of the poor law beneficiaries. At some future date it may be possible to absorb the domiciliary poor law work in an extended national health insurance scheme. Meantime, I cannot work out in my own mind anything better for this area than the arrangement now functioning. There are in Dundee five general practitioners carrying out the domiciliary treatment of the sick poor on a part-time basis. Should a vacancy occur on that staff, the Council will be asked to make a temporary appointment of another practising doctor, so that when the suitable moment arrives, the merging of this small service in a larger one may be facilitated.

The hospital services were dealt with in a special report submitted to the Town Council early this year. Special reference is made in that report to Maryfield Hospital, formerly under the control of the Parish Council. The recommendations made were of a preliminary

nature in order to enable the Council to obtain guidance not only from their own official advisers but from others well qualified to speak on the subject. They were as follows :—

- i. That the Town Clerk and the Medical Officer of Health be instructed to prepare a draft scheme under Section 27 (1) of the Local Government (Scotland) Act, 1929.
- ii. That the City Chamberlain be instructed to prepare a report on the financial position as affected by the draft scheme prepared by the Town Clerk and the Medical Officer of Health.
- iii. That representatives of the medical profession in the city be invited to submit their views to the Council on such matters as :—
  - a. The adequacy of the hospital accommodation in the city.
  - b. If, in their opinion, the hospital accommodation is inadequate, the nature and extent of the inadequacy.
  - c. The desirability of removing Maryfield Hospital from the category of Poor Law Hospitals.
  - d. In the event of a scheme under Section 27 (1) of the Local Government (Scotland) Act, 1929, being approved, the type of case (other than for whom the Council have statutory responsibility) which should be admitted to the Council hospitals and the method of selection of such cases for admission.
  - e. The question of visiting medical staff to Maryfield Hospital.
- iv. That the University Court of the University of St. Andrews be invited to discuss with the Town Council the possibility of arrangements being made whereby Maryfield Hospital will be recognised as a teaching hospital by the University, the visiting staff to the hospital being also University teachers.
- v. That consultations be held between the Directors of the Dundee Royal Infirmary and the Council to discuss, among other things, the methods of selection of cases for treatment in the Council hospitals (other than those for which the Council have statutory responsibility).

Similar consultations might usefully be arranged with the Directors of the Dundee Infant Hospital.

- vi. That neighbouring local authorities, particularly the County of Angus, be informed that the question of the reorganisation of the Council's Hospitals is under consideration, so that if considered possible and desirable, the hospital resources of the city may be made available to the County.

These consultations are now proceeding, and it is hoped that very soon the Council will be in a position to make a decision in the matter. In this case, again, it is necessary to look well into the future. Meantime, circumstances make it impossible to spend much money in the reconstruction and extension of buildings, but we must see that all resources available at the moment are used to the full. We must see that nothing is done which will interfere with the activities of other authorities. There are many hospital problems which have to be solved in the future, and these must be kept in mind when dealing with the present problem. The institutional treatment of mental disease and of mental defectives is an example, and this affects not only Maryfield Hospital but also Westgreen Mental Hospital and other of the Local Authority's institutions. It would appear to be necessary for Dundee to undertake the provision of a new institution for mental defectives. Very careful enquiries have been made throughout the year regarding the possibility of obtaining accommodation in existing institutions in Scotland, but without success, and many mental defectives have to be left in their own homes under conditions which are not by any means satisfactory either for them or for their families. Reports on the work of the various hospitals by the responsible medical officers are included in this volume, and the statistics contained in Hospitals Form I. are summarised in Table LIV. in the statistical section.

The infectious disease notifications and intimations totalled 4,749 last year, compared with 6,192 in 1930 and 4,339 in 1929. The figure for last year was swollen as the result of a sharp epidemic of chicken-pox and an unusual prevalence of whooping cough. Infectious Disease.

Very complete figures are given in the statistical section of the report, and some observations on certain of the infections are contained in the following paragraphs.

Measles was not present in epidemic form during the year. There were 383 cases intimated to the department, and of these, 42 occurred during the first quarter, 291 during the second, 41 during the third, and 9 during the last quarter. 92 cases (24%) were treated in hospital. Measles.  
Whooping  
Cough.  
Pneumonia.  
Influenza.

The disease started in the east end of the city and gradually spread to the western and central districts.



There were 14 deaths.

During the year there were 840 intimations of whooping cough, and of these, 112 cases (13·3%) were admitted to hospital. The disease was more or less evenly distributed throughout the city. There were 707 cases in the first six months and 133 cases in the last six months.

There were 44 deaths.

The number of notifications of pneumonia for 1931 was practically the same as for the previous year, namely, 863, against 856. The total number of cases admitted for hospital treatment was 663 or 77% of the total—the highest figure recorded for the last seven years. No case was refused hospital treatment. The admissions were divided between Dundee Royal Infirmary, King's Cross Hospital, and Maryfield Hospital. The previous percentages of cases receiving hospital treatment were as follows:—1925, 31%; 1926, 48%; 1927, 61%; 1928, 66%; 1929 72%; 1930, 67%; 1931, 77%—giving an average of 61·5% for the 7 years.

The disease was most prevalent during the months of March (109 cases), April (65 cases), May (55 cases), and during the last quarter of the year (385 cases).

There were 234 deaths from pneumonia (all forms). Of these, 108 occurred among children under five years of age.

In the course of the year the action taken by the department in connection with this disease was modified. For administrative purposes the disease was classified into three forms, as follows:—

1. Primary pneumonia.
2. Influenzal pneumonia.
3. Secondary pneumonia, following chiefly measles and whooping cough.

In the first-mentioned two forms (which are notifiable) the visitation was reduced to a minimum. It was found on visiting such cases that a great deal of time was wasted, as very frequently the health visitor found that the patient had died, or had been removed to hospital, or had been treated in homes where the facilities provided did not warrant any interference by the department. It was considered that the time spent on such cases could be utilised to much better advantage, and visits are now made only to children under five years of age, or to older patients in certain circumstances. Children under five years of age discharged from hospitals after suffering from pneumonia are kept under observation in their own homes. The frequency of visits depends

on the condition of the child and also on the housing conditions. By this arrangement much valuable time is saved, and health visitors can now concentrate on cases of measles and whooping cough with a view to preventing the complication of pneumonia. Measles and whooping cough are very serious maladies and cause more havoc among children than any of the other infections. The complications, apart from causing death, may impair a child's health for life. As already stated, out of 383 cases of measles, 92 (24%) were treated in hospital, and of 840 cases of whooping cough, 112 (13·3%) were treated in hospital. On account of the low incidence of infectious disease last year, it was possible to admit all cases of these two diseases that were recommended for hospital treatment. In several cases removal to hospital was the child's only hope of recovery.

In March of this year the tuberculosis patients at King's Cross Hospital were transferred to Ashludie Sanatorium, and the pavilion used as a tuberculosis pavilion for the last seventeen years is now available for the purpose for which it was built. As soon as the pavilion was vacated it was occupied by measles patients, as an epidemic of that disease appeared early in this year. It has proved to be very suitable for the treatment of children and the balconies have provided ample opportunities for the open-air treatment of the disease. In future we will be in a position to admit a much higher percentage of cases of measles, whooping cough, and pneumonia when these conditions are present in epidemic form.

There were 44 deaths certified as being due to influenza during the year. Included in this number is a child under five years of age.

68 cases of influenzal pneumonia were notified, and of these, 47 were notified during the months of March and April; the remainder of the cases were evenly distributed over the other months.

The number of scarlet fever cases notified was 246. For the first **Scarlet Fever**, six months only 76 were notified.

Hospital admissions were not restricted in any way. 180 cases (73%) were admitted, and the remaining 66 (27%) were treated at home.

There were no deaths.

The testing for susceptibility for scarlet fever and active immunisation against the disease was continued at the hospital. The following is an outline of the work :—

Age Group.		Dick Positive.	Dick Negative.	Dick Positive and Immunised.	Total.
Under 5 years ....	....	18	26	31	75
5-15 years ....	....	22	86	52	160
Over 15 years ....	....	5	43	18	66
		—	—	—	—
Totals ....	....	45	155	101	301
		==	==	==	==

Smallpox and  
Chickenpox.

The city remained free of smallpox during the year. Several persons who had been in contact with the disease elsewhere were notified to the department and these were all kept under observation.

There were 1,237 cases of chicken-pox notified or otherwise intimated to the department, and these were all visited in case any of them was suffering from smallpox. Six cases were admitted to hospital, three on account of chicken-pox complicating other diseases; one from a common lodging-house; one on account of a suspicious rash; and the other case from a ship. The ship left India and on the voyage several cases of smallpox occurred among the lascars crew. These cases were landed abroad. While the ship was lying in London several cases of chicken-pox were found, and on arrival of the ship in Dundee another case of undoubted chicken-pox was found and was removed to hospital. In view of the cases occurring in this country being chicken-pox, it appears possible that those landed abroad were also chicken-pox, but as there is always the possibility of the two diseases occurring on the same vessel, precautions were taken as if the cases abroad were genuine smallpox.

Diphtheria.

The number of notifications for the year was 395, the lowest number recorded since 1923. 354 cases (89·6%) were removed to hospital for treatment, and 41 (10·4%) were treated at home. 17 cases died—16 in hospital and 1 at home—a case mortality of 4·3%, as compared with 3·2% in 1930.

The disease was not present in epidemic form during any part of the year, but was most prevalent in the first and last quarters. The following table shows the quarterly incidence of the disease and also the number of deaths that occurred :—

		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Notifications ....	....	110	97	62	126	395
Deaths ....	....	4	5	4	4	17

The age distribution of the notifications and deaths was :—

		Under 1 year.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-45 yrs.	Over 45 yrs.	Total.
Notifications	....	12	100	203	54	21	5	395
Deaths	....	1	11	4	—	—	1	17
Case Mortality	....	8·33%	11%	1·97%	—	—	20%	4·3%

The certified causes of death were as follows :—diphtheria, 9 cases (in two of these there was early heart failure, in one case there was gangrene of the fauces, and in another case there was bronchitis); laryngeal diphtheria, 3 cases; diphtheria—faucial and laryngeal, 1 case; whooping cough, broncho-pneumonia, and diphtheria, 2 cases; measles, broncho-pneumonia, and diphtheria, 1 case; measles and diphtheria, 1 case.

Enquiries were made into the history of every case that died. In one home-treated case the patient had completely recovered for at least a fortnight from a mild attack of diphtheria, and then developed bronchitis. In this case, diphtheria had probably nothing to do with the cause of death and was only mentioned on the death certificate as being the primary illness. In four cases the diphtheritic condition was secondary to measles, whooping cough, or broncho-pneumonia. Deaths certified as being due to measles, whooping cough, pneumonia, and diphtheria are classified as diphtheria however slight the attack of diphtheria, or however severe the attack of measles, whooping cough, or pneumonia. If allowances were made for these cases the case mortality rate for 1931 would be much lower.

In several cases where diphtheria undoubtedly was the cause of death, there was considerable delay before the specific remedy was administered. The times varied, and ranged from 1 to 21 days with an average of 6 days. The period under treatment in hospital for these cases ranged from 4 hours to 49 days, or an average of 8 days. Three patients were admitted to hospital in a very moribund condition with no hope of recovery.

The facilities provided by the department's antitoxin service was again largely taken advantage of during the year by medical practitioners. 162 applications were made and a total of 1,006,000 units of antitoxin was issued.

Very little work in connection with diphtheria immunisation was carried out during the year. Some 63 persons were tested, and of these, 22 were schick negative; 17 were schick positive and received immunising doses. 24 children were immunised without previous schick testing. In addition to the total of 63 persons there were four defaulters



—1 whose schick test was not read ; one schick positive who was not immunised, and two children who only received 1 and 2 immunising doses respectively.

Of a total of three persons notified as diphtheria after being tested or immunised, 2 were not confirmed. The positive case was schick tested and found negative eleven months prior to notification.

Cerebro-Spinal  
Fever.  
Dysentery.  
Erysipelas.  
Malaria.

Thirteen cases of cerebro-spinal fever were made known to the department—12 through notification and 1 through the Registrar's death returns. All these cases received hospital treatment—2 in Dundee Royal Infirmary and 11 in King's Cross Hospital. Four of the cases were children under 1 year of age, and they all died ; 5 cases were children between the age of 1 and 5 years. Four of these cases recovered and one died. One fatal case was 5½ years old. The other 3 cases were adults, aged 18, 28, and 61 years. The first two cases died and the certified causes of death were cerebro-spinal fever and tubercular meningitis respectively. The other case (aged 61) recovered and the ultimate diagnosis was meningismus.

Eight cases of dysentery were notified in the course of the year, and of these, four were treated at home and four were admitted to hospital. Of the four hospital cases the diagnosis was confirmed only in one, and this case died. The ultimate diagnosis in the remaining cases was prolapse of rectum (1 case) and acute colitis (two cases in one family). The original source of infections were not definitely established, but in the last two mentioned cases periwinkles were suspected as being the source of infection.

232 cases of erysipelas were notified during the year, and of these, 100 cases were removed to hospital for treatment. There were 15 deaths from the disease.

Only one case of malaria was notified. The patient was a discharged soldier and first contracted the disease abroad in 1927.

Ophthalmia  
Neonatorum.

A total of 52 notifications of ophthalmia neonatorum was received. Thirteen were described as severe cases and 39 as mild. Smears from the affected eyes were taken in 47 cases, of which 32 were negative, 4 were positive, and 11 were suspicious. Institutional treatment was provided for 11 cases (9 in King's Cross Hospital and 2 in Maryfield Hospital) and 41 were treated at home. No permanent interference with vision resulted.

Enteric Fever.

There were 18 cases of enteric fever notified during the year, and the diagnosis in all was confirmed bacteriologically. Four were found to be typhoid fever and 14 were para-typhoid B. fever. Two died—one from typhoid fever and one from para-typhoid B. fever.



The sources of infection were fully enquired into. In one case the infection was possibly from a missed case that died after a protracted illness ; in 8 cases (2 separate cases and 2 family outbreaks of 3 cases in each family) the source of infection was outside Dundee ; in two cases the original source was not established, and in the remaining 7 (all para-typhoid B. fever) it was thought possible that infection might be due to eating periwinkles which were collected locally. In connection with the last series, the two related families provided 5 cases. They all consumed periwinkles on the same day and from the same source. They gathered them from what appeared to be a very polluted foreshore near a point where a sewer and storm overflow pipe discharged their contents. Specimens of periwinkles from this gathering-ground were submitted for bacteriological examination, and one was found to show the presence of colon bacilli. A few colonies were obtained and these were more fully investigated, but the bacteriologist failed to demonstrate the presence of disease producing organisms. In the other two cases, one patient bought cooked periwinkles in a shop and the other patient secured them from a street vendor. The incubation periods of these two cases were 14 and 12 days respectively. In these instances, there was every reason to believe the periwinkles were collected from about the same gathering-ground as described above. Several specimens of cooked periwinkles were submitted for bacteriological investigation, but their examination failed to reveal the presence of any organism indicating contamination with intestinal organisms of mammalian origin. Two other specimens of fresh periwinkles from another gathering-ground were also submitted for bacteriological examination, and in these instances the presence of colon bacilli was demonstrated, but the bacteriologist still failed, notwithstanding extended examination, to demonstrate the presence of disease producers. In last year's Annual Report, reference was made to 3 cases of para-typhoid B. fever, and the only suspicious source of infection was periwinkles. These were gathered at a place outside the burgh (directly opposite the gathering-ground now suspected) and bacteriological examination showed the presence of large numbers of true colon bacilli, thus indicating faecal contamination.

There were five cases recorded as encephalitis lethargica during the year, two through notification and three from the death returns. The ages of the patients were 43, 8, 44, 17, and 52 years, and the dates of onset of the disease were given as 1913, 1926, 1927, 1928, and 1931 respectively. The first four cases died and the diagnosis in two of them was rather doubtful. In the last case, the patient is still under treatment in Dundee Royal Infirmary, and the diagnosis is definitely given as cerebral haemorrhage.

Encephalitis  
Lethargica.

In the course of the year one previously notified case died—the certified cause of death being idiopathic spastic paralysis—and two cases that were under observation for a considerable time were removed from the list as having recovered.

The present position is as follows :—

- i. There are six cases requiring institutional treatment (four of these cases are presently in Maryfield Hospital, and the other two have also received treatment in Maryfield Hospital, but are meantime at their own homes).
- ii. There are two cases presently in their own homes, who are not requiring institutional treatment at present, but may do so at a later date.
- iii. There are five cases suffering from marked sequelae of the disease, who would not avail themselves of any facilities provided by the department.
- iv. There are three cases not definitely classified, and these are being kept under observation.

59 notifications of these two conditions were received (puerperal fever, 20 ; puerperal pyrexia, 39). Of the total, 52 received hospital treatment, 37 in King's Cross Hospital and 15 in the Dundee Royal Infirmary.

In the King's Cross Hospital section of this report, Dr. Keay, the senior medical officer, deals very fully with his hospital experience of puerperal fever and puerperal pyrexia throughout the year. There were 56 cases admitted to King's Cross Hospital, those including patients not only from Dundee but from the neighbouring counties. The case mortality among the patients treated in King's Cross Hospital dropped from 18% in 1930 to 10·9% in 1931. There may of course be many explanations of the difference.

Dr. Hunter describes fully in his report the work done under the Tuberculosis Scheme. As a consequence of the reorganisation following on the Local Government (Scotland) Act, 1929, this scheme has been brought into closer touch with other branches of the department. The nursing work at the tuberculosis section of the Public Health Institute and the home visitation of tuberculosis patients are now carried out by the central staff of health visitors instead of as formerly by special tuberculosis nurses. The arrangement works very well. A special tuberculosis consultation has also been established at the school clinic, to which children found or suspected to be suffering from tuberculosis by the school medical officers are referred for diagnosis

Puerperal  
Fever.  
Puerperal  
Pyrexia.

Tuberculosis.

and appropriate treatment to the Tuberculosis Medical Officer. These alterations tend to strengthen not only the tuberculosis scheme but the whole work of the department.

Early in the present year the extensions at Ashludie Sanatorium were completed and the tuberculosis patients were transferred from King's Cross Hospital to the new pavilion. This transfer centralises the indoor treatment of the disease, and the X-Ray equipment, operating theatre, and plaster-room will make it possible for the more satisfactory control of the non-pulmonary variety of the disease.

Further evidence that tuberculosis is steadily coming under control is found in the death-rate for last year, which is once more the lowest recorded for the city. The death-rate for all forms of the disease was  $\cdot 95$  per 1,000 population. For the first time it has fallen below 1 per 1,000. The steady decline in the annual mortality statistics for this disease forces the conclusion that the fall is not the result of accidental causes, but that it arises from influences which are steadily in operation. No doubt there are many such influences, but an important one which would appear to be affecting the non-pulmonary tuberculosis death-rate is the improvement in the milk supply and the practice which has become more general in recent years of pasteurising milk before delivery to the consumer. Contrasting the five yearly periods, 1915-19 and 1925-29, the decline in non-pulmonary tuberculosis at all ages in Dundee was approximately 49%, compared with 35% for pulmonary tuberculosis. The average annual rate of fall for non-pulmonary tuberculosis during the period 1915-19 was 4.3%, whereas for the period 1925-29 it was 5.9%. For pulmonary tuberculosis the corresponding figures were 10.9% and 2.4% respectively. Thus, the rate of fall in the death-rate from non-pulmonary tuberculosis has risen while that for the pulmonary form has declined. As the non-pulmonary sort is believed to be due mainly to milk infection, these figures are suggestive and appear to have some relation to the increased use of pasteurised milk. Of the various forms of non-pulmonary tuberculosis, the abdominal form, which is most frequently attributed to the milk supply, shows the most marked decline. There can be no doubt that all milk which is not derived from cows proved to be free from tuberculosis should be pasteurised.

The Venereal Diseases Scheme was carried on as usual, and Dr. <sup>Venereal Disease.</sup> Averill's report provides ample evidence of a full year's work. There were 41,437 attendances at the two treatment centres in the Public Health Institute. Compared with the previous year, there was an increase of 253 in the male attendances and a decrease of 2,751 in the female attendances.



The nursing work in the women's section of the Venereal Diseases Scheme is carried out by the central staff of health visitors, but special care is taken in selecting nurses for this class of work and changes in the staff are made as seldom as possible. All the health visitors must, however, take a spell at the venereal diseases treatment centre in order that they will be thoroughly familiar with the working of the scheme.

Diabetes.

There were 20 persons receiving insulin at the end of 1930 in terms of the Public Health (Scotland) Amendment Act, 1925. During 1931 11 new applications were received and these were all granted. Insulin was also supplied to two patients under treatment for diphtheria and erysipelas in King's Cross Hospital.

During the year 6 patients died ; three ceased using insulin and one patient was removed from the register on account of receiving insulin under the National Health Insurance Act. There were thus 21 patients on the register at the end of 1931.

The insulin issued for the year totalled 1,050 bottles of 5 c.c.'s (100 units each) and 98 bottles of 5 c.c.'s (200 units each). No syringes were issued on loan during the year.

An enquiry was made into the conditions under which the patients supplied with the remedy free of cost or at a reduced cost were receiving insulin. It is very important that the insulin should be given under the conditions of bio-chemical control and dietetic balance, which are likely to secure the best results. At the time of enquiry there were 19 patients receiving insulin from the department under the provisions of the Public Health (Scotland) Amendment Act, 1925. One was removed to hospital before she could be visited and consequently is not included in the investigation. Of the remaining 18, 16 received insulin free of cost and 2 paid half the cost.

Fifteen of the patients were females, three males. Their ages varied from 14 to 81 years, the average age being 56 years. Only one was under 40 ; fourteen were aged 50 years or over, and eight 60 years or over.

The stated duration of the disease was from five months to eight years, the average duration being  $3\frac{1}{2}$  years.

With the exception of one, who appeared to have suffered from symptoms of diabetes for eight years before seeking advice, all the patients seem to have received medical attention early in their illness, and all received the benefit of specialist advice at the outset at least and were ordered insulin treatment. The majority (15) were referred to the medical wards of Dundee Royal Infirmary for initial investigation and were kept there for from several days to several weeks. One

patient was sent to Maryfield Hospital, being later referred as an out-patient to the Infirmary. Two were seen privately by specialists.

All the cases were on a prescribed diabetic diet and for the most part appeared to adhere strictly to it, although a few found difficulty in doing so on account of the cost.

The daily dosage of insulin varied from 5 units to 30 units, the average being 21 units. Five patients administered the insulin themselves and nine had it injected by members of the family. One patient living within easy reach of the Infirmary attended that institution twice daily for insulin administration. In the three remaining cases the injections were given by nurses of the Dundee Sick Poor Nursing Society, who visited daily for that purpose.

Five of the cases attended the Dundee Royal Infirmary and four their own doctor at regular intervals for investigation and supervision (2 once a week; 3 once a fortnight; 2 every three weeks; 2 once a month). Three were visited at home by their medical attendants at regular intervals (1 once a fortnight; 1 once a month; 1 once in 3 months). The remainder (6) merely called in or consulted a doctor when any untoward symptom occurred.

As regards clinical tests, blood sugar estimations appeared to be restricted to in-patients in hospital and had only been performed in the majority of the cases in the initial investigation. This appears reasonable. Urine tests, however, were not performed regularly in all cases. Of the 12 patients under regular medical supervision urine tests were performed once a week in 3 cases; once a fortnight in 4 cases; once in 3 weeks in 2 cases; once a month in 2 cases; in one case only at irregular intervals. Of the remaining 6 patients with no regular medical supervision, the urine was examined at regular intervals in three cases, although the patient was not actually seen by the doctor on each occasion.

To sum up, two-thirds of the cases might be said to be having insulin administered on scientific lines and under satisfactory medical supervision. A further one-sixth were at least under some measure of control, but the remaining one-sixth had their treatment reviewed only if and when their condition necessitated their seeking medical advice.

Table XXIII. in the statistical section of the report gives the death-rate per 100,000 population from diabetes since 1881. If these figures are accepted as accurate they provide very suggestive evidence of an increase in diabetes. The death-rate for last year is the highest ever recorded. This may seem surprising when insulin has been available for some nine years. There certainly is evidence that the

incidence of the disease has been rising, but it should be noted that all deaths of diabetic persons are usually certified as being due to diabetes, even although the immediate cause of death was not diabetes, but some intercurrent illness. It must also be kept in mind that the effect of insulin is not to bring about a cure but to prolong life. The following table contrasts the numbers of deaths from diabetes in Dundee at various age periods during the ten years 1912-21 and those during the ten years 1922-31 :—

		All Ages.	Under 10 yrs.	10-25	25-35	35-45	45-55	55-65	65-76	75-85	85 & Over.
1912-21	....	121	1	16	11	18	12	21	26	16	—
1922-31	....	151	2	7	7	10	12	46	42	23	2

Insulin has been available during most of the second period. It will be observed that while the total number of deaths at all ages has increased from 121 to 151 there is a marked fall in the number of deaths at ages under 55. It may be assumed that this alteration is entirely due to the prolongation of life arising from the use of insulin.

Port Sanitary  
Administration.

Tables XXXVII., XXXVIII., and XXXIX. set forth in detail an account of the activities of the department at the Port of Dundee. Only one case of infectious disease was met with during the year in ships arriving at the Port. This occurred on a vessel which, throughout the voyage, had had on board several cases of alleged smallpox and chicken-pox. On arrival here the crew were examined by the Port Medical Officer, who found a lascar seaman suffering from chicken-pox. The case was removed to King's Cross Hospital. Two ships arrived direct from plague-infected ports. Immediately on arrival they were visited by the Medical Officer and the crews examined. No cases of sickness were found. During 1931 no deratisation certificates were issued under the Public Health (Deratisation of Ships) Regulations (Scotland), 1929, but 24 deratisation exemption certificates were granted.

Housing.

The details of the year's work on housing given by the Chief Sanitary Inspector in his report are so complete that it is unnecessary for me to deal with the subject at any length. In the annual report for 1930 an outline was given of the various improvement schemes, clearance areas, etc., undertaken or under consideration by the Council. The position is now much the same as described then. On 24th February 1931 I represented for clearance under the Housing (Scotland) Act, 1930, a small area comprising 15 houses in Broughty Ferry. The area has been cleared and is now the site of new houses in course of construction. On 13th May 1931 I submitted an official representation involving some 210 houses and 16 other premises in Blackness Road. The area appears to be a suitable one for an improvement resolution, but the Council have not yet come to a decision. On 31st

July some 14 areas embracing 281 houses and 33 other premises were made the subject of a representation with a view to clearance. Negotiations are now proceeding for the purchase of the properties.

During 1931 689 new houses were provided (Corporation, 378 ; private enterprise, 91 ; Fleming Trust, 196 ; Gray Trust, 24) and 418 old houses have ceased to be houses, having been closed, demolished, or converted. The housing state of the city has as a consequence materially improved in quality and also in quantity.

In September of last year, along with the Chief Sanitary Inspector, I submitted to the Housing Committee the figure 1,894 as our estimate of the number of houses then required in Dundee, the whole of these being necessary to replace a corresponding number of houses which, in our opinion, should be dealt with under the Housing (Scotland) Act, 1930. The estimate was arrived at as follows :—

a. To accommodate persons living in houses unfit for human habitation.	
Houses which are closed by order but still occupied ....	350
Houses included in the Small's Wynd Improvement Scheme ....	315
Houses under consideration by the Committee (Bogwell, Lochee) ....	51
Houses which, in the opinion of the Sanitary Inspector, will require to be dealt with as Clearance Areas or Improvement Areas under the Housing (Scotland) Act, 1930 (the figure includes 299 houses covered by a Clearance Resolution already passed by the Town Council ; 268 houses which form the subject of a Representation by the Medical Officer of Health for purposes of a Clearance Area ; 160 houses in the Blackness Road District covered by a Representation of the Medical Officer of Health for purposes of an Improvement Area ; and 14 houses included in the Queen Street Clearance Area (Broughty Ferry)) ....	1,395
Number of houses to be demolished to complete above Schemes, say— ....	50
Houses in Overgate Scheme ....	455
Timber Huts ....	50
Houses which, in the opinion of the Sanitary Inspector, will require individual attention with a view to closure and demolition during the next three years ....	300
	<hr/>
	2,966
	<hr/>



It is estimated, therefore, that there are now in the city 2,966 houses which are unfit for human habitation. There are, however, a certain number of houses now being built or under consideration by the Housing Committee. The following details were submitted by the City Engineer on 12th September :—

*Houses under construction :—*

Tullideph Road	....	....	....	108 houses
Wester Clepington (Closing Orders)	....	....	....	12 „
Wester Clepington (Small's Wynd)	....	....	....	60 „
Wester Clepington (1930 Act)	....	....	....	6 „
Corso Street	....	....	....	48 „
Law Creseent	....	....	....	256 „
Fleming Trust	....	....	....	304 „
				—
				794 houses— 794

*Houses under consideration :—*

Queen Street, Broughty Ferry	....	....	....	30 houses
Sandeman Street	....	....	....	164 „
Clepington Road	....	....	....	84 „
				—
				278 houses— 278
				—
Total			....	<u>1,072</u>

Deducting that figure from the total 2,966, there remains 1,894, which is the estimated number of houses required to meet the needs of the inhabitants of Dundee to replace houses unfit for human habitation.

b. Houses which are overcrowded.

It may be assumed that many of the houses detailed under a. are overcrowded and if they are demolished and alternative accommodation of an up-to-date sort provided, overcrowding in the city will be substantially abated. Certainly most of the overcrowding which arises from large families occupying tiny houses exists in areas mentioned under a. It may be assumed, therefore, that the estimate given under a. covers b. also.

e. Increase in population.

The figure 175,583 is issued provisionally as the Dundee population obtained at this year's Census. The population estimated by the Registrar-General at the middle of 1930 was 166,495. According to



the 1921 Census the population in that year was 168,315. There is some reason to believe, however, that the 1921 Census figure is unreliable because the Census was taken at the middle of the year when many of the citizens were on holiday. The combined population of Dundee and Broughty Ferry at the 1911 Census was 176,351. It would appear, therefore, that during the 20 years from 1911 to 1931 there has been a fall in population of 768. In 1911 (Census) there were 43,774 houses (41,229 occupied and 2,545 unoccupied) in Dundee and Broughty Ferry, while at the 1921 Census there were 43,729 houses (42,265 occupied and 1,473 unoccupied). It is estimated that at the present time there are 45,977 houses in Dundee. This last figure is subject to confirmation when the final Census Report appears. It would seem that there are now 2,000 more houses available than in 1911, although the population has remained substantially the same. It must be noted, however, that although there is little difference in the population there is probably a much larger number of families to be housed. In 1911 it is safe to assume that the total population would be made up of a smaller number of families, the average size of each family being large, while at present it is probably composed of a larger number of small families. Under the circumstances, we do not feel justified in submitting any estimate under this heading and suggest that consideration of the matter should be delayed until the final Census Report is available.

Our estimate of the number of houses required immediately in Dundee is therefore 1,894, all of which are necessary to replace a corresponding number of houses, which, in our opinion, should be dealt with under the Housing (Scotland) Act, 1930.

Full details of inspections and examinations of samples under the various statutes relating to food supply are contained in the report of the Chief Sanitary Inspector. The year's work under the Public Health (Meat) Regulations (Scotland), 1930, is recorded and analysed in the tables submitted by the Slaughter-house Superintendent and included in the statistical section of this report. Food Supply

There were no recognised outbreaks of food poisoning during 1931.

The milk supply of the city continues to receive much attention, and the reports of the Chief Sanitary Inspector and the Veterinary Surgeon will be found to give full information regarding the routine work carried out in this connection.

During the year 86 samples of milk taken in the course of distribution to consumers were submitted to bacteriological examination in order to determine the degree of contamination by micro-organisms.

The results are set forth in Professor Tulloch's report. Of the 86 samples, 56 were of ungraded milks, while 30 were of designated milks—Pasteurised, 15 ; Certified, 6 ; Grade A (Tuberculin Tested), 9. Of the 15 samples of Certified and Grade A (T.T.) milk examined, 5 failed to conform to the required standards either by reason of the number of *b. coli* or because of an excessive total bacterial count. Six out of 15 specimens of milk sold as " Pasteurised " showed a total bacterial count in excess of that permitted by the Milk (Special Designations) Order (Scotland), 1930. In the case of the 56 ungraded milks, 34 samples (61 per cent.) might be deemed bacteriologically clean as they conformed to the standards of *b. coli* and total bacterial content laid down for Grade A. milk, while 13 (23 per cent.) were unsatisfactory. These figures emphasise the need for continual supervision of the city's milk supply during all stages of production, treatment, and distribution. By making enquiry in all cases where the bacteriologist's report on the milk is unsatisfactory, it is hoped to keep before producers and distributors the constant need for hygienic methods of handling milk and for the maintenance of the efficiency of pasteurising plants.

One dairyman in the city is licensed to produce and sell Certified milk and Grade A. (Tuberculin Tested) milk and two firms are licensed to produce and sell Pasteurised milk, while a large number of retailers is licensed to sell designated milks.

During 1931 Professor Tulloch has carried out for the department an investigation on a large scale into the incidence of tuberculous infection in market milk. This was done as part of a national investigation instigated and subsidised by the Empire Marketing Board in collaboration with the Department of Health for Scotland. Up to the end of the year it was found that nearly 10 per cent. of samples of fresh milk as retailed in the city contained living tubercle bacilli, while roughly 5 per cent. of pasteurised milks were infected. Professor Tulloch's observations on these results will be found of particular interest. The figures are perhaps not so alarming as they seem at first sight, but they certainly constitute a very strong argument for encouraging the development of tubercle-free milk herds throughout the country. The number of pasteurised samples found to contain tubercle bacilli is surprising, and it can only be supposed that the minor breakdowns which are liable to occur from time to time in the process of commercial pasteurisation have been sufficient to allow of the escape of a certain number of tubercle bacilli. Future improvements in methods and plant should result in greater efficiency in this respect.

In November 1931 I submitted to the Public Health Committee a report prepared in conjunction with the Town Clerk on the pasteurisa-

tion of milk. This followed upon a communication from the Town Clerk of Glasgow asking whether Dundee Town Council would be prepared to co-operate with the Corporation of Glasgow in obtaining statutory powers for the compulsory pasteurisation of all milk other than certified or grade A. (Tuberculin Tested) milk. In that report we stated that in our opinion all milk not produced from animals proved to be free from tuberculosis and sold under licence as certified or grade A. (Tuberculin Tested) milk should be pasteurised. It was explained that there are no records in the Public Health Department of any outbreaks being caused by pasteurised milk, while there are records of some nine outbreaks of milk infection during the last 15 years in which the evidence supports the conclusion that the disease was spread by ordinary unpasteurised milk. In regard to tuberculosis, it was shown that the decline in the death-rate from non-pulmonary tuberculosis was much more marked than that of pulmonary tuberculosis, and further, that the rate of fall in the non-pulmonary rate had increased during recent years, while that of pulmonary tuberculosis had lessened. In conclusion, we gave it as our opinion that the milk designations at present in use under the grading scheme are confusing and should be changed so that the public will understand the comparative merits of the various grades.

There was a slight reduction in 1931 in the number of ordinary bacteriological examinations conducted by Professor Tulloch on behalf of the department. The total number for the year was 9,563, as against 9,960 in 1930. This total, however, does not include 1,130 examinations made in connection with the special investigation into the incidence of tuberculous infection in milk.

Bacteriological  
Laboratory  
Services.

Details of the work done will be found in Professor Tulloch's section of this report, on which no further comment is necessary, except once again to express our warm appreciation of the very valuable services rendered by him and his staff.

In the last annual report the scheme approved by the Town Council for the reorganisation of the maternity service, school medical service, and the out-door nursing service was described. The changes are gradually being made but some little time must elapse before all the proposals can be given effect to. Even then, it must not be considered that these services are fully fledged. Indeed the reorganisation merely provides a sure foundation for a much more complete structure, which may assume almost any form in the years to come. The maternity service, for example, cannot be said to be sufficient for the needs of the city. The various child welfare centres go a certain length in supervising the health of the infant and pre-

Maternity  
Service,  
School Medical  
Service,  
Out-Door  
Nursing Service



school child, but they are not sufficient and never can be sufficient to meet the needs of all infants and children in the city. Although the school child is well looked after, a great deal more can yet be done for his health both at home and in the school. These matters have already been referred to earlier in this report and nothing more need be said here.

The central staff of health visitors is working satisfactorily. Numerous minor adjustments of local interest only have been made in the light of experience, but there can be no doubt that the general principle is a sound one not only for present purposes but also to meet future requirements.

The central clinic at Nelson Street is being enlarged and the branch clinics are being reorganised so that the special school children's clinic in Castle Street may be dispensed with and all children requiring special examinations and treatment of minor maladies will be attended to at the child welfare centres nearest to their homes. The enlarged principal centre should be completed by November of this year. Blackness Road Clinic has been closed and transferred to the premises in Isles' Lane, formerly used as a day nursery. The Princes Street Child Welfare Centre will be closed this year, the work being transferred to much more satisfactory premises at Kilcraig, Ferry Road. The child welfare centres at Lochee, Caldrum Street, and Broughty Ferry remain as before, although school children residing in Lochee and attending Lochee schools now receive any treatment they require at Lochee Clinic and do not have to travel to the principal school clinic in Castle Street. Very great care is taken in considering the alterations of these branch clinics so that they will meet the needs of the community for many years to come, and will fit in to any development of the child health service which is likely to occur.

In the middle of last year Isles' Lane Day Nursery was closed and Polepark Day Nursery, Fleuchar Street, was opened. Recently Cotton Road Day Nursery was closed as the number of children in attendance at Cotton Road and Lilybank Day Nurseries did not justify two institutions. This step must not be considered as permanent, but new premises will be required to replace the Cotton Road building, which is not very suitable for the purpose and which will in any case be demolished to permit of alterations to Ann Street School.

In a separate section will be found the annual report of Dr. Kidd, Chief School Medical Officer, on the medical inspection of school children. The report of Dr. Margaret Scott Dickson, Chief Maternity Services Medical Officer, is also included and follows the lines suggested by the Department of Health for Scotland.

## STATISTICAL SECTION.

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TABLE I.

## AGE and SEX DISTRIBUTION of POPULATION, 1931.

Population (estimated by Registrar-General), 176,006.

Percentage of Males to total population (Census, 1931)	....	44.9%
"    "    Females    "    "    "    "    "    "    "	....	55.1%
Estimated Sex Distribution for 1931 :—Males	....	79,027
Females	....	96,979

Age Groups.	Percentage to total at all Ages (Census 1931).		Estimated Age and Sex Distribution for 1931.			
	Males.	Females.	Males.	Females.	Both Sexes.	
0-5	9.7	7.7	7,666	7,467	15,133	
5-10	10.2	8.5	8,061	8,243	16,304	
10-15	8.9	7.3	7,033	7,079	14,112	
15-25	18.1	17.2	14,304	16,680	30,984	
25-35	15.2	15.8	12,012	15,323	27,335	
35-45	11.9	13.2	9,404	12,801	22,205	
45-55	10.7	11.8	8,456	11,444	19,900	
55-65	9.1	9.9	7,192	9,601	16,793	
65-75	4.8	6.1	3,793	5,916	9,709	
75-85	1.3	2.2	1,027	2,134	3,161	
85 and over	.1	.3	79	291	370	
All Ages	100.0	100.0	79,027	96,979	176,006	

TABLE II.

Estimated population in various Wards, 1931.

Ward.	Population (Census 1931)	Percentage to total Population (Census 1931).	Estimated Population for 1931.
I. ....	16,846	9.6	16,896
II. ....	11,698	6.7	11,792
III. ....	16,499	9.4	16,544
IV. ....	17,428	9.9	17,425
V. ....	24,720	14.1	24,817
VI. ....	17,240	9.8	17,249
VII. ....	22,355	12.7	22,353
VIII. ....	18,975	10.8	19,009
IX. ....	19,092	10.9	19,185
X. and XI. ....	10,732	6.1	10,736
Totals	175,585	100.0	176,006



TABLE III.

Return showing the Causes of Death (Corrected for Transfers) at the Different Age-Periods during 1931 :—

CAUSE OF DEATH.	ALL AGES.										85 & Over.				
	Total. Males. Females.			AGE.											
Typhoid and paratyphoid fevers	...	2	...	—1	1—	5—	10—	15—	25—	35—	45—	55—	65—	75—	85 & Over.
Measles	...	14	6	1	12	1	...	...	...	1	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	44	20	25	19	...	...	...	...	...	...	...	...	...	...
Diphtheria	...	17	8	1	11	4	...	...	...	...	...	...	...	...	...
Influenza	...	44	23	1	...	...	...	...	...	...	1	...	...	...	...
Cerebro-Spinal Fever	...	7	2	4	1	1	...	...	1	4	6	11	10	6	5
Other Epidemic Diseases	...	19	8	5	2	1	...	...	...	...	...	...	...	...	...
Respiratory Tuberculosis	...	128	58	70	...	...	...	29	43	23	18	11	4	...	...
Tuberculous Meningitis	...	18	9	9	...	2	...	3	2	2	...	...	...	...	...
Abdominal Tuberculosis	...	5	3	2	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous	...	16	8	8	3	2	1	5	4	...	...	1	...	...	...
Cancer	...	277	124	153	1	2	...	...	5	18	35	66	98	47	7
Rheumatic Fever	...	2	1	...	...	1	...	...	...	...	...	...	...	...	...
Diabetes Mellitus	...	24	7	17	...	1	...	1	1	...	...	...	...	...	...
Diseases of Nervous System	...	315	147	168	12	1	...	6	9	4	30	69	98	72	12
Diseases of Circulatory System	...	448	212	236	...	1	3	3	9	7	45	87	154	117	21
Bronchitis	...	149	63	86	19	...	...	2	2	5	9	21	39	43	9
Pneumonia	...	234	136	98	64	44	...	2	10	15	16	20	22	12	6
Other Diseases of Respiratory System	...	46	22	24	1	1	...	1	1	3	3	8	11	13	2
Diarrhoea and Enteritis (under 2 years)	...	24	15	9	23	...	...	...	...	...	...	...	...	...	...
Appendicitis	...	19	15	4	2	2	...	4	2	3	1	3	1	1	...
Other Diseases of Digestive System	...	91	45	46	3	5	1	4	7	3	14	18	19	10	5
Nephritis...	...	57	25	32	1	1	...	4	2	8	5	12	17	5	...
Other Diseases of Genito-Urinary System	...	20	12	8	2	...	...	1	...	1	1	6	5	3	1
Puerperal Sepsis	...	7	...	7	...	...	...	...	3	4	...	...	...	...	...
Other Diseases and Accidents of Pregnancy and Parturition	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	11	...	11	...	...	...	2	5	4	...	...	...	...	...
Diseases of Early Infancy	...	19	11	8	19	...	...	...	...	...	...	...	...	...	...
Senility	...	119	69	50	119	...	...	...	...	...	...	...	...	...	...
Violent Deaths	...	91	29	62	...	...	...	...	...	...	...	...	...	...	...
All Other Causes	...	87	47	40	1	5	2	7	10	8	11	12	12	7	4
	...	91	38	53	13	5	4	5	5	11	10	12	16	3	2
All Causes	...	2445	1163	1282	317	120	44	17	91	125	212	371	526	394	101



TABLE IV.

Death Rates at various Age-Periods (from all causes) each year.  
1927-1931.

Age. Periods.	1927.		1928.		1929.		1930.		1931.	
	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.
All ages	2918	16·9	2598	15·1	2670	16·0	2661	16·0	2445	13·9
0-5 years	783	52·1	509	33·9	513	35·2	572	39·4	437	28·9
5-10 "	51	3·3	58	3·7	35	2·3	45	3·0	44	2·7
10-15 "	28	1·7	26	1·6	24	1·5	24	1·5	17	1·2
15-25 "	104	3·2	92	2·8	104	3·3	101	3·2	91	2·9
25-35 "	134	5·3	118	4·7	121	5·0	98	4·0	125	4·6
35-45 "	147	6·6	141	6·4	167	7·8	166	7·7	127	5·7
45-55 "	239	11·6	238	11·5	229	11·5	229	11·5	212	10·7
55-65 "	404	28·6	414	29·4	407	29·7	387	28·4	371	22·1
65-75 "	530	68·8	523	68·0	565	75·7	551	74·1	526	54·2
75-85 "	382	153·3	381	153·1	414	171·5	412	171·3	394	124·6
85 and over	116	431·2	98	367·0	91	350·0	76	293·4	101	273·0

TABLE V.

Death-rate (from all causes) each month during the years 1927-1931.

(From Registrar-General's monthly returns.)

Month.	1927.	1928.	1929.	1930.	1931.
January ....	18.6	18.9	21.7	16.6	17.4
February ....	23.7	15.0	31.2	17.2	17.0
March ....	25.8	17.1	17.3	21.2	20.7
April ....	15.0	17.9	15.1	20.3	17.9
May ....	13.8	14.9	14.9	18.3	15.2
June ....	15.5	13.3	12.6	13.2	12.5
July ....	14.5	13.1	12.1	14.0	10.8
August ....	15.4	13.4	10.6	12.7	10.8
September ....	14.0	12.8	11.3	11.9	10.4
October ....	15.7	13.4	13.6	12.3	9.7
November ....	14.7	13.0	13.5	16.9	14.1
December ....	18.5	15.4	12.5	16.4	15.2

TABLE VI.

Death-rate (from all causes) in various Wards each year since 1920.

Year.	Whole.	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	15.8	16.2	16.7	16.9	15.1	13.6	18.1	14.6	15.2	14.1	10.2
1921	15.8	15.2	16.5	15.2	15.3	13.8	17.4	14.2	16.9	13.5	12.8
1922	16.7	16.0	17.0	18.1	15.5	14.4	18.1	15.0	18.1	15.3	14.0
1923	14.7	15.0	14.0	14.8	14.0	12.8	16.4	15.0	15.4	14.3	12.1
1924	16.4	15.7	16.6	17.2	14.8	13.5	18.6	16.5	17.6	16.6	13.4
1925	16.7	17.8	15.3	18.4	15.9	15.3	16.8	15.2	17.6	18.6	12.8
1926	14.8	15.7	15.5	16.7	14.0	12.5	14.8	14.5	15.5	14.1	13.2
1927	16.9	16.9	17.9	19.4	15.7	15.2	17.6	16.3	16.5	18.0	12.8
1928	15.1	16.6	15.2	17.3	13.0	13.9	13.6	14.8	14.0	15.8	11.3
1929	16.0	16.1	15.7	17.8	14.2	13.6	14.4	16.1	16.9	16.1	12.9
1930	16.0	17.3	14.0	16.2	13.0	15.3	16.4	16.1	16.1	16.3	12.8
1931	13.9	12.4	15.6	13.5	14.1	13.2	14.1	12.7	14.2	14.7	11.2

TABLE VII.

Birth-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	27.4	29.3	27.4	29.3	24.6	26.7	28.9	28.0	30.1	27.0	21.0
1921	26.5	27.9	27.7	25.2	25.1	26.8	29.3	24.9	32.3	24.1	17.8
1922	24.6	27.2	24.6	24.6	22.5	21.1	27.5	24.6	28.3	25.1	19.2
1923	24.6	27.7	24.6	26.0	21.8	22.3	27.7	25.8	28.5	24.0	13.6
1924	22.6	23.1	21.8	25.5	20.8	21.3	24.7	20.1	26.9	23.7	14.0
1925	21.8	23.3	19.9	22.2	21.7	20.2	24.1	22.1	25.0	22.1	14.4
1926	21.9	24.7	23.2	26.5	19.6	18.9	25.1	20.3	24.2	23.4	10.9
1927	20.4	24.6	20.6	25.0	18.1	18.5	22.4	20.1	22.2	18.9	11.6
1928	20.3	25.5	19.4	23.1	18.2	18.3	22.0	20.6	21.9	18.9	15.1
1929	20.9	25.3	17.6	25.0	16.7	20.3	22.9	20.0	23.7	21.6	12.9
1930	21.1	25.6	18.4	24.2	18.7	21.5	21.6	20.8	21.4	22.0	14.0
1931	19.5	21.0	15.4	22.6	18.3	17.2	23.5	15.8	22.5	22.1	15.0

TABLE VIII.

Infantile Death-rate (per 1,000 births) in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	131	131	153	150	142	141	150	87	131	133	52
1921	114	130	124	103	101	109	130	131	114	96	99
1922	109	81	101	136	121	109	115	99	125	98	76
1923	98	89	79	121	76	119	121	78	88	92	74
1924	120	104	144	137	121	112	133	108	96	136	71
1925	126	156	128	162	124	118	119	85	150	123	57
1926	103	114	75	110	94	96	100	100	132	93	66
1927	138	121	160	127	137	139	175	135	140	130	62
1928	102	93	126	82	91	108	96	79	111	127	65
1929	102	91	101	116	80	124	80	101	119	87	86
1930	113	101	101	117	109	92	135	124	113	135	60
1931	92	87	94	86	75	75	113	88	112	116	19

TABLE IX.

Death-rate in various Wards each year since 1920 from principal Epidemic Diseases.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	1·05	1·15	·90	1·18	·96	·93	1·95	·78	·89	1·09	·34
1921	1·09	1·00	1·15	1·04	·99	·93	1·56	1·37	1·24	1·04	·37
1922	·80	1·09	·72	·66	·67	·95	1·08	·89	·84	·43	·54
1923	1·17	1·65	·97	1·03	·77	1·00	1·48	1·29	1·75	1·12	·36
1924	1·69	1·51	2·42	1·93	1·54	1·48	2·67	1·45	1·59	1·71	·36
1925	1·70	1·58	1·60	2·49	1·27	·57	·90	·82	1·21	·37	·27
1926	·79	·96	·72	1·24	·79	1·60	1·69	1·82	2·21	1·70	·45
1927	1·43	2·16	1·25	2·32	1·45	1·13	1·44	1·19	·93	1·78	·54
1928	·65	1·08	·55	·67	·47	·79	·66	·43	·93	·47	·09
1929	·38	·35	·40	·57	·37	·36	·46	·11	·48	·38	·09
1930	·78	·63	·41	·95	·64	·63	1·03	·39	1·56	·97	·18
1931	·84	·89	·76	·48	·75	·56	1·28	·31	1·37	1·46	·47

NOTE.—1931 figures are for 18 Infectious Diseases (excluding Infantile Diarrhœa).

TABLE X.

Pulmonary Tuberculosis Death-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	·99	·90	1·35	1·29	·81	·81	1·21	·88	·93	·86	·51
1921	1·00	1·12	1·23	1·04	·99	·80	1·38	·85	1·13	·74	·56
1922	·98	·54	1·12	·95	·87	1·17	1·18	·72	1·16	·92	·63
1923	·98	1·24	1·05	1·15	·82	·69	1·08	·89	1·27	·93	·45
1924	·85	1·30	·56	·54	·92	·65	1·13	1·00	·95	·88	·45
1925	·87	·89	·80	1·12	·74	·80	1·12	·66	·79	1·06	·55
1926	·81	·96	·79	·87	·32	·93	·56	·77	·95	1·17	·54
1927	·89	1·35	·86	1·10	·57	·96	·77	·76	·78	1·20	·45
1928	·80	·74	·47	·98	1·09	1·00	·66	·65	·83	·63	·54
1929	·78	·56	·81	·94	·64	·54	·91	·62	1·07	1·08	·55
1930	·76	1·05	·73	·70	·48	·90	·46	1·18	·91	·70	·09
1931	·73	·53	·68	·79	·69	·64	·81	·98	·79	·68	·28

TABLE XI.

Tuberculosis (all forms) Death-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	1·37	1·02	1·57	1·63	1·05	1·21	1·95	1·09	1·38	1·37	·68
1921	1·35	1·62	1·81	1·60	1·30	·98	1·68	1·31	1·40	1·04	·65
1922	1·37	·82	1·44	1·31	1·43	1·51	1·80	1·00	1·63	1·36	·63
1923	1·43	1·65	1·46	1·45	1·29	1·18	1·71	1·34	1·86	1·32	·64
1924	1·23	1·51	·80	1·33	1·18	1·04	1·64	1·40	1·48	1·07	·54
1925	1·22	1·37	1·12	1·37	1·11	·98	1·41	1·10	1·37	1·38	·82
1926	1·12	1·43	1·19	1·18	·53	1·19	·73	1·21	1·26	1·54	·63
1927	1·16	1·69	1·02	1·40	·67	1·26	1·05	·87	1·04	1·83	·54
1928	1·05	·88	·86	1·22	1·30	1·22	·94	·92	1·04	·89	·63
1929	1·05	·77	1·29	1·20	1·02	·76	1·08	1·01	1·28	1·35	·64
1930	1·05	1·68	1·14	·76	·70	1·31	·69	1·46	1·18	·92	·28
1931	·95	·71	·76	·97	·80	1·01	1·28	1·25	·95	·83	·28

TABLE XII.

Certified causes of death at the various ages under 1 year for 1931.

CAUSE OF DEATH.			Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 and under 4 weeks	Total under 4 weeks	4 weeks and under 2 mths	2 and under 3 months	3 and under 6 months	6 and under 9 months	9 and under 12 months	Total Deaths under 1 year
Enteric Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Typhus Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....
Measles	....	....	....	....	....	....	....	....	....	....	....	....	....
Scarlet Fever	....	....	....	....	....	....	....	....	....	....	....	1	1
Whooping Cough	....	....	....	....	....	....	....	3	4	6	5	7	25
Diphtheria	....	....	....	....	....	....	....	....	....	1	....	....	1
Infantile Paralysis	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro-Spinal Meningitis	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuberculosis	Lung	....	....	....	....	....	....	....	....	....	4	....	4
	General	....	....	....	....	....	....	....	....	....	1	....	1
	Abdominal	....	....	....	....	....	....	....	....	....	....	....	....
	Brain	....	....	....	....	....	....	....	....	1	....	1	2
	Other Forms	....	....	....	....	....	....	....	....	....	....	....	....
Influenza	....	....	....	....	....	....	....	....	....	1	....	....	1
Other Infectious Diseases	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia (all forms)	....	4	3	1	2	10	3	4	14	16	19	66	5
Bronchitis	....	1	....	1	2	4	8	1	2	2	1	18	....
Laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	....
Other Diseases of Respiratory System	....	....	....	....	....	....	....	....	....	....	....	....	....
Diarrhoea and Enteritis	....	....	....	....	2	2	6	3	8	3	....	22	....
Other Diseases of Digestive System	....	....	....	....	....	....	....	....	2	....	....	2	....
Meningitis (not T.B.)	....	....	....	....	....	....	....	....	....	1	....	1	....
Convulsions	....	1	....	1	1	3	1	1	2	3	1	11	....
Other Diseases of Nervous System	....	....	....	....	....	....	....	....	....	....	....	....	....
Congenital Malforma- tions	....	12	1	1	....	14	1	....	2	....	3	20	....
Congenital Debility, Icterus, Sclerema, Marasmus	....	14	3	3	1	21	7	5	9	10	3	55	....
Premature Birth	....	45	3	2	....	50	4	....	2	....	....	56	....
Injury at Birth	....	5	....	....	....	5	....	....	....	....	....	5	....
Other Diseases peculiar to Early Infancy	....	4	....	....	....	4	....	....	....	....	....	4	....
Suffocation, Overlay- ing	....	....	....	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	....	....	....	....	....
Syphilis	....	....	1	1	....	2	3	1	1	....	....	7	....
Violence	....	....	....	....	....	....	....	....	....	....	1	1	....
All other Causes	....	2	....	....	....	2	1	....	4	1	1	9	....
Total	....	88	11	10	8	117	38	20	56	48	38	317	....



TABLE XIII.

Infant Mortality from various groups of causes, 1890-94, and each year from 1913.

Year Average.		Con- genital.	Diges- tive.	Respira- tory.	Infectious Diseases.	All Other Causes.	Total
1890-94	....	53	32	44	25	29	183
1913	....	62	40	28	12	20	162
1914	....	58	33	15	17	13	136
1915	....	64	38	38	51	18	209
1916	....	63	20	15	13	15	126
1917	....	57	24	24	13	19	137
1918	....	53	16	24	20	13	126
1919	....	60	13	30	8	15	126
1920	....	53	21	36	10	11	131
1921	....	58	16	19	13	8	114
1922	....	50	11	27	10	11	109
1923	....	46	4	21	13	14	98
1924	....	54	12	25	12	17	120
1925	....	53	10	35	16	12	126
1926	....	58	11	18	4	12	103
1927	....	50	14	46	17	11	138
1928	....	45	9	28	9	11	102
1929	....	48	12	30	7	5	102
1930	....	55	7	32	13	6	113
1931	....	42	7	24	12	7	92

TABLE XIV.

Infant Mortality from all causes at various age periods since 1916.

Year.				Death Rates.			
	Births.			Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year
1916	....	....	3,725	32	49	74	126
1917	....	....	2,842	25	42	68	137
1918	....	....	2,902	27	45	65	126
1919	....	....	3,466	29	51	78	126
1920	....	....	5,047	26	44	72	131
1921	....	....	4,450	27	47	67	114
1922	....	....	4,227	26	46	66	109
1923	....	....	4,199	29	44	61	98
1924	....	....	3,865	31	48	68	120
1925	....	....	3,694	25	42	65	126
1926	....	....	3,724	35	49	65	103
1927	....	....	3,517	26	46	70	138
1928	....	....	3,501	23	39	54	102
1929	....	....	3,486	25	40	55	102
1930	....	....	3,506	28	46	65	113
1931	....	....	3,431	26	34	51	92

TABLE XV.

Deaths and Death-rates from various groups of causes each year since 1927 (all ages).

DISEASE GROUP.	1927.		1928.		1929.		1930.		1931.	
	Pop.		Pop.		Pop.		Pop.		Pop.	
	172,444.		172,214.		167,109.		166,495.		176,006.	
	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.
Congenital ....	177	1.03	164	.95	170	1.02	198	1.19	144	.82
Digestive ....	153	.89	128	.74	136	.81	114	.68	134	.76
Respiratory ....	592	3.43	471	2.73	607	3.63	522	3.14	429	2.44
Infectious ....	499	2.89	305	1.77	306	1.83	346	2.08	325	1.85
Circulatory ....	427	2.48	403	2.34	410	2.45	438	2.63	447	2.54
Genito-Urinary ....	94	.55	78	.45	106	.63	100	.60	72	.41
Malignant ....	279	1.62	338	1.96	280	1.68	311	1.87	276	1.57
Nervous ....	291	1.69	283	1.64	281	1.68	310	1.86	301	1.71
Other Causes ....	406	2.35	428	2.49	374	2.24	322	1.93	317	1.80
Totals ....	2918	16.92	2598	15.09	2670	15.98	2661	15.98	2445	13.89

TABLE XVI.

Number of Illegitimate Births, Number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births since 1920.

Year	Illegitimate Births.		Deaths of Illeg. Infants.		Rate per 1,000 Illeg. Births.
1920	....	427	....	104	244
1921	....	344	....	65	189
1922	....	296	....	45	152
1923	....	331	....	43	130
1924	....	280	....	52	186
1925	....	235	....	33	140
1926	....	256	....	33	129
1927	....	268	....	48	179
1928	....	274	....	42	153
1929	....	265	....	29	109
1930	....	276	....	44	159
1931	....	254	....	28	110

TABLE XVII.

Five-yearly average annual death-rates per 100,000 population from certain of the Infectious Diseases, 1876-1925, and number of deaths and death-rates per 100,000 each year since 1926.

Year.	Smallpox.		Scarlet Fever.		Enteric Fever.		Typhus Fever.		Diphtheria.		Measles.		Whooping Cough.	
	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.
1876-1880	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1881-1885	...	1	...	26.5	...	22.3	...	10.4	...	29.1	...	52.7	...	84.4
1886-1890	...	1	...	14.7	...	14.1	...	5.3	...	40.0	...	33.0	...	86.1
1891-1895	...	2	...	33.0	...	10.5	...	2.8	...	20.0	...	32.7	...	67.3
1896-1900	...	...	...	5.7	...	17.6	...	4.0	...	19.7	...	51.5	...	64.4
1901-1905	...	1.5	...	14.5	...	10.4	...	2.5	...	16.1	...	36.5	...	43.9
1906-1910	...	1	...	4.1	...	10.8	...	.6	...	12.7	...	42.5	...	55.5
1911-1915	...	.5	...	14.5	...	3.7	...	.7	...	25.9	...	60.8	...	42.1
1916-1920	...	1	...	10.9	...	3.6	...	.5	...	21.0	...	41.7	...	61.2
1921-1925	...	...	...	2.7	...	2.8	...	2	...	18.5	...	33.1	...	15.3
1926	0	...	28	13.3	...	.6	...	...	...	22.8	...	40.5	...	25.7
1927	0	...	9	16.5	1	.6	0	...	66	38.8	1	.6	4	2.4
1928	0	...	0	5.2	0	...	0	...	69	40.0	76	44.1	48	27.8
1929	0	...	0	...	0	...	0	...	30	17.4	16	9.3	36	20.9
1930	0	...	3	1.8	2	1.2	0	...	13	7.8	1	.6	7	4.2
1931	0	...	0	...	1	.6	0	...	13	7.8	65	39.0	29	17.4
...	...	...	0	...	2	1.1	0	...	17	9.7	14	8.0	44	25.0

TABLE XVIII.

Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases, 1891-1925, and No. of Cases notified and intimated, No. of Deaths, and Case Mortality each year since 1926.

Year.	Smallpox.			Scarlet Fever.			Enteric Fever.			Typhus Fever.			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.
1891-1895	—	—	3.7	—	—	3.3	—	—	15.1	—	—	9.8	—	—	38.0	—	—	8.7	—	—	70.8
1896-1900	—	—	—	—	—	4.2	—	—	15.2	—	—	22.5	—	—	23.2	—	—	8.4	—	—	47.9
1901-1905	—	—	5.4	—	—	2.3	—	—	16.6	—	—	14.0	—	—	16.2	—	—	10.2	—	—	38.8
1906-1910	—	—	1.5	—	—	3.0	—	—	11.3	—	—	12.1	—	—	17.3	—	—	10.4	—	—	17.6
1911-1915	—	—	5.3	—	—	2.5	—	—	9.9	—	—	13.3	—	—	11.1	—	—	11.0	—	—	13.2
1916-1920	—	—	6.7	—	—	1.4	—	—	11.2	—	—	26.7	—	—	11.0	—	—	5.7	—	—	5.2
1921-1925	—	—	—	—	—	2.4	—	—	7.3	—	—	—	—	—	9.8	—	—	6.3	—	—	8.9
1926	0	0	—	1275	28	2.2	25	1	4.0	0	0	—	786	66	8.4	77	1	1.3	149	4	2.7
1927	152	0	—	414	9	2.2	9	0	—	0	0	—	1023	69	6.7	2032	76	3.7	924	48	5.2
1928	5	0	—	208	0	—	3	0	—	0	0	—	623	30	4.8	1062	16	1.5	829	36	4.3
1929	0	0	—	822	3	.4	17	2	11.8	0	0	—	437	13	3.0	72	1	1.4	208	7	3.4
1930	0	0	—	302	0	—	15	1	6.7	0	0	—	403	13	3.2	2605	65	2.5	673	29	4.3
1931	0	0	—	246	0	—	18	2	11.1	0	0	—	395	17	4.3	383	14	3.7	840	44	5.2



TABLE XIX.  
MALIGNANT DISEASES.

Number of Deaths during each year since 1921 :—

Year.	Males.	Females.	Total.
1921	113	176	289
1922	104	168	272
1923	115	146	261
1924	103	167	270
1925	114	173	287
1926	111	154	265
1927	111	165	276
1928	138	200	338
1929	101	179	280
1930	136	176	312
1931	122	154	276

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TABLE XX.

Death-rate per 10,000 population, from Malignant Diseases, each year since 1921, sexes given separately and together.

Year.	Males.	Females.	Total.
1921	15.13	18.80	17.17
1922	13.62	17.55	15.81
1923	15.17	15.36	15.27
1924	13.55	17.52	15.76
1925	15.16	18.37	16.95
1926	14.70	16.29	15.58
1927	14.50	17.21	16.01
1928	18.05	20.89	19.63
1929	13.61	19.27	16.76
1930	18.40	19.01	18.74
1931	15.44	15.88	15.68

## Age and Sex Distribution of Deaths from Malignant Disease

AGE GROUPS	BUCCAL CAVITY				PHARYNX, OESOPHAGUS, STOMACH, LIVER, and ANNEXA								PERITONEUM, INTESTINES and RECTUM								FEMALE GENITAL ORGANS	
	Lip	Mouth	Soft Palate	Tongue	Cardia	Gall Bladder	Liver	Oesophagus	Pharynx	Pylorus	Stomach	Ventriculi	Bowel	Caecum	Colon	Descending Colon	Pelvic Colon	Transverse Colon	Intestine	Rectum	Cervix	Ovary
Under 20	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20-25	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25-35	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
35-45	M	...	...	...	...	...	1	1	...	1	3	...	...	1	...	...	...	...	1	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...
45-55	M	...	1	...	...	...	...	...	...	...	8	...	...	...	2	...	...	...	2	...	...	...
	F	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	1	1
55-65	M	...	...	2	...	4	1	2	...	...	9	...	...	...	2	1	2	1	...	3	...	...
	F	...	...	...	...	...	3	3	...	...	6	2	1	...	...	...	...	...	...	1	...	...
65-75	M	1	1	1	2	...	2	3	1	1	5	...	2	...	4	...	2	2	...	3	...	...
	F	...	...	...	...	...	4	3	...	...	11	...	2	...	7	...	...	...	2	6	...	3
75 & over	M	...	...	...	...	...	1	...	...	1	8	...	...	...	2	...	...	...	...	4	...	...
	F	...	...	...	1	...	5	1	...	...	7	...	1	...	1	...	...	1	1	2	...	...
Totals	1	2	1	5	1	4	17	13	1	3	59	2	7	1	19	1	4	4	5	21	2	6

XXI.

uring 1931, showing parts of the body affected.

COUNT	SKIN			OTHER OR UNSPECIFIED ORGANS																	TOTALS		
	Penis	Rodent Ulcer	Scrotum	Abdomen	Axilla	Bladder	Brain	Eye	Kidney	Larynx	Leg	Lung	Mediastinum	Neck	Pancreas	Pelvis	Prostate	Testicle	Other Parts	Not Specified			
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	}	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	}	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0		
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	}	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4		
...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	11	}	18
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7		
...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	15	}	36
6	...	...	...	...	...	2	1	1	...	...	1	1	...	...	...	...	...	...	...	...	21		
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	1	32	}	65
3	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	33		
...	1	1	...	...	...	1	...	...	1	2	...	1	...	...	2	...	2	...	...	1	42	}	97
8	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	1	1	55		
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	...	...	20	}	61
4	...	1	...	...	1	2	...	...	...	1	...	1	...	2	...	...	...	...	...	...	34		
29	2	2	1	1	1	7	1	1	3	3	1	6	1	2	6	1	5	1	2	5			276

TABLE XXII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and number of Deaths and Death-rates per 100,000 each year since 1926, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).

Year.	Total Deaths.					Death-rate per 100,000
1876-1880	....	....	—	....	....	508.5
1881-1885	....	....	—	....	....	482.3
1886-1890	....	....	—	....	....	463.2
1891-1895	....	....	—	....	....	473.2
1896-1900	....	....	—	....	....	419.8
1901-1905	....	....	—	....	....	387.1
1906-1910	....	....	—	....	....	345.6
1911-1915	....	....	—	....	....	329.5
1916-1920	....	....	—	....	....	327.3
1921-1925	....	....	—	....	....	278.6
1926	....	....	401	....	....	235.8
1927	....	....	592	....	....	343.3
1928	....	....	471	....	....	273.5
1929	....	....	607	....	....	363.2
1930	....	....	522	....	....	313.5
1931	....	....	429	....	....	243.7

TABLE XXIII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, and number of Deaths and Death-rates per 100,000 each year since 1926 from Diabetes Mellitus.

Year.	Total Deaths.					Death-rate per 100,000
1876-1880	....	....	—	....	....	—
1881-1885	....	....	—	....	....	1.8
1886-1890	....	....	—	....	....	.5
1891-1895	....	....	—	....	....	2.0
1896-1900	....	....	—	....	....	2.4
1901-1905	....	....	—	....	....	5.5
1906-1910	....	....	—	....	....	5.9
1911-1915	....	....	—	....	....	8.5
1916-1920	....	....	—	....	....	5.5
1921-1925	....	....	—	....	....	6.9
1926	....	....	11	....	....	6.5
1927	....	....	19	....	....	11.0
1928	....	....	15	....	....	8.7
1929	....	....	20	....	....	12.0
1930	....	....	13	....	....	7.8
1931	....	....	24	....	....	13.6



TABLE XXIV.

## INFLUENZA.

Deaths in which Influenza was given as a cause, each month  
January 1922—December 1931.

MONTH.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
January	73	2	0	5	1	6	1	6	2	0
February	19	0	2	2	0	14	0	55	1	4
March	3	0	7	3	0	27	3	4	3	20
April	1	2	8	3	14	3	1	1	3	11
May	1	1	2	0	8	0	0	0	0	2
June	0	1	1	0	1	2	0	1	1	1
July	0	0	0	0	0	0	0	2	1	0
August	0	0	0	0	2	0	0	0	0	0
September	0	1	3	3	1	3	1	0	1	2
October	1	0	0	1	2	6	2	0	1	0
November	4	1	10	1	5	4	3	2	1	1
December	1	4	6	2	2	4	7	1	2	3
Totals	103	12	39	20	36	69	18	72	16	44

TABLE XXV.

Deaths in which Influenza appears as a cause in death certificate  
1922-1931 classified in age periods.

AGE PERIODS.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Under 1 year	4	0	1	0	1	3	1	6	0	1
1-5 years	3	0	1	2	2	4	0	3	0	0
5-15 "	2	0	1	0	1	3	0	2	1	0
15-25 "	5	0	1	0	3	3	1	2	0	0
25-45 "	28	2	8	3	4	11	4	12	1	5
45-65 "	26	2	12	7	8	21	4	14	6	17
65 and upwards	35	8	15	8	17	24	8	33	8	21
Totals	103	12	39	20	36	69	18	72	16	44

During 1931, 5 deaths were certified as due to Influenza alone,  
while in 39 cases it was associated with:—

Bronchitis	....	....	....	9
Pneumonia	....	....	....	16
Other Respiratory Disease	....	....	....	1
Other cause	....	....	....	13

TABLE XXVI.

INFECTIOUS DISEASES.—Number of cases of each disease notified and reported in Dundee during the year 1931. Also number removed and number not removed to Hospital.

DISEASE.	At all ages.	At Age—Years							Cases removed to Hospital	Cases not removed to Hospital
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards		
Typhoid or Enteric Fever	18	....	4	6	2	4	2	....	16	2
Scarlet Fever	246	3	98	128	8	9	....	....	180	66
Diphtheria	395	12	100	203	54	21	5	....	354	41
Erysipelas	232	12	10	10	25	52	88	35	100	132
Puerperal Fever	20	....	..	....	6	14	....	....	19	1
Puerperal Pyrexia	39	....	....	....	14	25	....	....	33	6
Ophthalmia Neonatorum	52	52	....	....	....	....	....	....	11	41
Malaria	1	....	....	....	....	1	....	....	0	1
Dysentery	8	....	2	1	....	3	2	....	4	4
Acute Primary Pneumonia	863	134	305	210	60	84	37	33	663	200
Acute Influenzal Pneumonia	68	....	4	9	13	22	14	6	20	48
Pulmonary Tuberculosis	245	1	4	65	62	85	25	3	182	63
Non-Pulmonary Tuberculosis	87	3	18	28	19	16	2	1	44	43
Encephalitis Lethargica	3	....	....	1	....	1	1	....	2	1
Cerebro-Spinal Fever	12	3	5	1	1	1	1	....	12	....
Chickenpox	1237	58	311	843	16	6	3	....	6	1231
*Measles	383	32	192	159	....	....	....	....	92	291
*Whooping Cough	840	124	347	368	....	1	....	....	112	728
Totals	4749	434	1400	2032	280	345	180	78	1850	2899

\*Not notifiable in Dundee during 1931.

Tuberculosis—Cases notified in a previous year and removed to Hospital for the first time during 1931—

Pulmonary, 13: Non-pulmonary, 3; Total 16.

TABLE XXVII.

Monthly Notifications and Intimations of Infectious Disease.  
Dundee, 1931.

DISEASE.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Typhoid Fever	1	...	...	1	1	2	8	...	4	1	...	...	18
Scarlet Fever	13	9	10	13	13	18	27	29	32	40	20	22	246
Diphtheria	40	41	29	24	44	29	24	17	21	38	49	39	395
Erysipelas	30	17	19	21	6	6	17	10	16	29	35	26	232
Puerperal Fever	5	2	1	...	2	2	2	3	2	...	...	1	20
Puerperal Pyrexia	9	8	3	6	...	2	1	3	3	2	1	1	39
Ophthalmia Neonatorum	4	3	1	7	4	7	...	4	8	4	3	7	52
Malaria	...	...	...	...	...	...	...	...	...	...	...	1	1
Dysentery	...	...	2	...	2	...	2	...	1	...	...	1	8
Encephalitis Lethargica	...	...	...	1	...	...	...	1	...	...	...	1	3
Acute Primary Pneumonia	41	57	109	65	55	33	30	33	55	83	142	160	863
Acute Influenzal Pneumonia	1	7	29	18	2	1	...	1	...	4	1	4	68
Pulmonary Tuberculosis	23	25	18	18	17	35	14	23	22	17	15	18	245
Non-Pulmonary Tuberculosis	5	8	5	10	4	10	5	13	9	6	7	5	87
Cerebro-Spinal Fever	1	3	1	2	1	...	2	1	1	...	...	...	12
Chickenpox	207	152	155	69	49	78	23	23	51	133	176	121	1,237
*Measles	1	22	19	80	140	71	22	16	3	3	5	1	383
*Whooping Cough	105	141	132	123	137	69	15	25	34	20	19	20	840
Totals	486	495	533	458	477	363	192	202	262	380	473	428	4,749

\*Not notifiable in Dundee during 1931.





TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).

Year.	Estimated Population.	NOTIFICATIONS AND CASE RATES.				DEATHS AND DEATH-RATES.			
		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1913	164,975	400	2.42	Non-Pulmonary Tuberculosis Notifiable in March 1914.		191	1.16	128	.77
1914	176,584	590	3.34	377	2.12	249	1.41	126	.71
1915	177,300	485	2.73	213	1.17	275	1.55	113	.64
1916	181,437	522	2.87	171	.94	259	1.42	95	.52
1917	181,773	432	2.37	201	1.11	218	1.20	140	.77
1918	181,777	393	2.16	137	.73	256	1.40	90	.49
1919	185,388	442	2.38	132	.71	165	.89	83	.44
1920	184,084	423	2.29	99	.58	183	.99	69	.38
1921	168,217	375	2.23	162	.94	168	.99	59	.35
1922	172,061	401	2.33	216	1.26	168	.98	67	.39
1923	170,901	309	1.80	142	.83	167	.98	78	.45
1924	171,295	295	1.72	121	.72	146	.85	65	.38
1925	169,361	280	1.65	123	.72	148	.87	59	.35
1926	170,060	308	1.81	112	.65	138	.81	52	.31
1927	172,444	288	1.67	131	.76	153	.89	47	.27
1928	172,214	318	1.85	90	.54	138	.80	42	.25
1929	167,109	260	1.56	105	.63	130	.78	45	.27
1930	166,495	267	1.60	87	.49	126	.76	49	.29
1931	176,006	245	1.39			128	.73	39	.22

TABLE XXX.

TUBERCULOSIS.—Notifications and Deaths with corresponding rates per 1,000 population in various wards, 1931.

Ward.	NOTIFICATIONS AND CASE RATES.						DEATHS AND DEATH-RATES.					
	Non-Pulmonary			Non-Pulmonary			Non-Pulmonary			Non-Pulmonary		
	Pulmonary Tuberculosis.	Per 1000.	Per Pulmonary Tuberculosis, 1000.	Pulmonary Tuberculosis (all forms).	Per 1000.	Per Pulmonary Tuberculosis, 1000.	Pulmonary Tuberculosis.	Per 1000.	Per Pulmonary Tuberculosis, 1000.	Pulmonary Tuberculosis (all forms).	Per 1000.	Per Pulmonary Tuberculosis, 1000.
I.	....	1.12	.65	30	1.78	.53	9	.53	.18	12	.71	.18
II.	....	1.27	.42	20	1.70	.68	8	.68	.08	9	.76	.08
III.	....	1.51	.54	34	2.06	.79	13	.79	.18	16	.97	.18
IV.	....	1.49	.52	35	2.01	.69	12	.69	.11	14	.80	.11
V.	....	1.05	.44	37	1.49	.64	16	.64	.36	25	1.01	.36
VI.	....	1.57	.70	39	2.26	.81	14	.81	.46	22	1.28	.46
VII.	....	1.57	.45	45	2.01	.98	22	.98	.27	28	1.25	.27
VIII.	....	1.95	.47	46	2.42	.79	15	.79	.16	18	.95	.16
IX.	....	1.25	.47	33	1.72	.68	13	.68	.16	16	.83	.16
X. and XI.	....	.65	.19	9	.84	.28	3	.28	—	3	.28	—
No fixed abode	....	—	—	4	—	—	3	—	—	4	—	—
Totals	....	1.39	.49	332	1.89	.73	128	.73	.22	167	.95	.22

TABLE XXXI.

PULMONARY TUBERCULOSIS—Notifications and Deaths with corresponding rates per 1000 population for each sex each year since 1915.

Year.	NOTIFICATIONS.				DEATHS.			
	Males.		Females.		Males.		Females.	
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000
1915	216	2.75	269	2.72	106	1.35	169	1.71
1916	227	2.83	295	2.92	99	1.23	160	1.58
1917	181	2.25	251	2.48	100	1.24	118	1.16
1918	198	2.46	195	1.92	117	1.45	139	1.37
1919	238	2.90	204	1.97	90	1.09	75	.72
1920	223	2.74	200	1.95	95	1.16	88	.85
1921	197	2.64	178	1.90	81	1.08	87	.92
1922	170	2.23	231	2.41	75	.98	93	.97
1923	149	1.97	160	1.68	73	.96	94	.98
1924	135	1.78	160	1.68	75	.98	71	.74
1925	125	1.66	155	1.65	61	.81	87	.93
1926	135	1.79	173	1.83	67	.89	71	.75
1927	147	1.92	141	1.47	76	.99	77	.80
1928	159	2.08	159	1.66	67	.88	71	.74
1929	126	1.70	134	1.44	61	.82	69	.74
1930	131	1.77	136	1.47	64	.87	62	.67
1931	121	1.53	124	1.28	58	.73	70	.72

TABLE XXXII.

Pulmonary Tuberculosis—Deaths in Institutions each year since 1922.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Total Deaths from Pulmon. T.B.	168	167	147	148	138	153	138	130	126	128
No. of Deaths from Pulmon. T.B. in Institutions	85	75	62	66	77	70	74	70	64	71
Percentage of Total Deaths from Pul. T.B. dying in Institutions	50.6	44.9	42.1	44.6	55.8	45.8	53.6	53.8	50.8	55.5

TABLE XXXIII.  
MATERNAL MORTALITY.

Certified causes of deaths of women from diseases and accidents connected with pregnancy and child-birth during 1931.

Accidents of pregnancy	....	....	....	....	....	1
Puerperal haemorrhage	....	....	....	....	....	1
Puerperal septicæmia, including post-abortion sepsis	....	....	....	....	....	7
Toxaemias of pregnancy; albuminuria, convulsions	....	....	....	....	....	5
Other puerperal diseases	....	....	....	....	....	4
						—
						18

TABLE XXXIV.

Maternal Mortality Rates—number of deaths per 1,000 registered births each year, 1922-1931.

1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
8.51	4.76	3.88	4.60	8.86	7.96	6.86	6.88	4.28	5.25

TABLE XXXV.

Number of births per 1,000 population, illegitimate births per 100 registered births, and marriages per 1,000 population, each year since 1914.

Year.	Birth-rate	Illegitimate-rate.	Marriage-rate
1914	25.2	9.1	8.3
1915	22.1	8.0	9.5
1916	20.5	8.0	7.1
1917	15.6	11.2	7.0
1918	16.0	10.6	7.5
1919	18.7	11.1	10.6
1920	27.4	8.5	11.4
1921	26.5	7.7	10.0
1922	24.6	7.0	8.8
1923	24.6	7.9	8.3
1924	22.6	7.2	7.6
1925	21.8	6.4	7.6
1926	21.9	6.9	7.7
1927	20.4	7.6	7.4
1928	20.3	7.8	7.8
1929	20.9	7.6	7.7
1930	21.1	7.9	8.1
1931	19.5	7.4	7.2

TABLE XXXVI.  
VACCINATION—1921-1930.

YEAR	Total Births (excluding Transcripts received)	Successfully Vaccinated		Insusceptible to Vaccination		Died before Vaccination		Conscientious Objections		Postponement or unaccounted for	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
1921	4509	1191	26.4	27	.6	379	8.4	2682	59.5	230	5.1
1922	4288	1193	27.8	12	.3	323	7.5	2556	59.6	204	4.8
1923	4275	1240	29.0	11	.2	284	6.6	2567	60.1	173	4.1
1924	3921	1077	27.5	16	.4	352	9.0	2271	57.9	205	5.2
1925	3750	978	26.1	17	.4	306	8.2	2270	60.5	179	4.8
1926	3822	1087	28.4	25	.7	309	8.1	2252	58.9	149	3.9
1927	3591	1228	34.2	49	1.4	307	8.5	1933	53.8	74	2.1
1928	3585	1198	33.4	43	1.2	253	7.1	2037	56.8	54	1.5
1929	3598	1118	31.1	63	1.7	240	6.7	2124	59.0	53	1.5
1930	3625	1111	30.6	32	.9	260	7.2	2186	60.3	36	1.0

TABLE XXXVII.

The Public Health (Port Administration Infectious Diseases)  
Regulations (Scotland), 1921.

DETAILS OF VESSELS ENTERING THE PORT DURING 1931.

	No. of Arrivals.	Tonnage.	No. Inspected by Medical Officer.	No. Inspected by Sanitary Inspector.	No. Reported Defective.	No. of Orders Issued.
From Foreign—						
Steamers ....	293	521,272	9	293	123	201
Motor-ships ....	5	1,849	—	5	—	—
Coastwise ....	795	263,924	—	—	—	—
	1,093	787,045	9	298	123	201

TABLE XXXVIII.

Port Sanitation.

Principal Foreign Places from which ships arrived and  
notes of cargoes.

PORT OR COUNTRY.	No.	CARGOES.
India (Calcutta, Chittagong, Colombo, &c.)	70	Jute, Gunnies, Linseed, Desiccated Coconut.
Hamburg ....	54	Sugar, Potatoes, Farina, Phosphates, Fancy Goods
Rotterdam, Ghent, Dunkirk ....	35	Sugar, Milk, Cheese, Fruit, Vegetables, Moss Litter, Steel Plates and Tubing.
Antwerp ....	26	Vegetables, Iron, and Steel.
Gothenburg ....	20	Paper, Paper Pulp, Box Boarding.
U.S.A. and Canada ....	20	Flour, Sugar, Pitch, Ochre.
Baltic Ports ....	18	Timber and Flax.
Norway ....	17	Paper and Paper Pulp.
Algeria and Tunis ....	8	Esparto Grass and Phosphates.
West Indies, &c. ....	9	Sugar and Oil.
South Africa ....	1	Sugar.
Other European Ports ....	20	Timber, Cork, Pyrites, Phosphates, Oil-cake, Grain and Vegetables.



## TABLE XXXIX.

## Port Sanitation.

## Details of Action taken :—

Total Number of verbal intimations	....	....	....	167
Total Number of rat notices issued	....	....	....	96
Total Number of visits to ships	....	....	....	853
Total Number of ships from infected or suspected ports	....	....	....	77
Do.	do.	(direct)		7
Do.	do.	(indirect)		70

## Nuisances and defects attended to—201.

Forecastles cleaned	....	....	....	41
Messrooms cleaned	....	....	....	17
Galleys and store-rooms cleaned	....	....	....	22
Accumulation of food refuse	....	....	....	20
Choked or defective W.C.'s	....	....	....	28
Dirty W.C.'s	....	....	....	36
Discharge of foul water on quay	....	....	....	30
Bugs in forecastle or other accommodation	....	....	....	7

—  
201

In addition the following work was carried out while the vessels were in Port :—

Fresh water tanks cleaned out	....	....	....	16
Forecastles washed or painted	....	....	....	24
Bathrooms or wash-places painted	....	....	....	26
Galleys washed or painted	....	....	....	32
W.C.'s painted	....	....	....	19
Forecastle disinfected	....	....	....	1

TABLE XL.

## BACTERIOLOGICAL LABORATORY.

Examinations carried out on behalf of the Department by Professor Tulloch, in the Laboratory, University College, Dundee.

		1924	1925	1926	1927	1928	1929	1930	1931
Wassermann Tests ....	....	3261	3513	3660	3619	4107	4177	4588	4419
Microscopical and other ex-									
aminations under V.D.									
Scheme for—									
Syphilis ....	....	68	33	35	42	31	36	109	51
Gonorrhoea ....	....	1589	1690	1863	2227	2933	3301	3019	2779
Swabs for diphtheria ....	....	1188	2027	1980	2560	1898	1500	1197	962
Widal tests for enteric fever		158	140	220	236	106	228	206	212
Sputum examinations ....	....	334	385	320	299	310	302	261	291
Examination of faeces, blood									
cultures, etc., for— ....	....								
Enteric fever ....	....	64	80	91	47	26	131	100	214
Dysentery ....	....	0	13	6	2	11	37	70	50
Infantile Diarrhoea ....	....	11	8	4	3	7	—	—	—
Puerperal Fever ....	....	—	—	—	—	—	90	166	180
Milk examinations ....	....	96	97	101	97	75	74	105	+1220
Food Poisoning—									
No. of outbreaks ....	....	(4)	(2)	(3)	(2)	(2)	(1)	(2)	(0)
No. of examinations ....	....	146	7	71	44	27	14	11	0
Cerebro-spinal meningitis ....	....	1	0	8	10	16	13	23	12
Other examinations ....	....	27	*78	*60	45	35	19	105	303
Totals ....	....	6943	8071	8419	9231	9582	9922	9960	10693

\*Includes 50 Rats examined for *Leptospira Icterohaemorrhagica*.

†Includes 1130 for T.B. and for Epizootic Abortion of cattle, in collaboration with the Empire Marketing Board and the Department of Health for Scotland.

TABLE XLI.

## DISINFECTION, 1931.

The table submitted below details the year's work in regard to disinfection.

MONTH.	Bed Ticks.	Beds.	Mattresses.	Bed Covers.	Blankets.	Sheets.	Bolster Ticks.	Bolster Cases.	Pillow Ticks.	Pillow Cases.	Bed Panes.	Aprons.	Handkerchiefs.	Table Cloths.	Towels.	Wearing Apparel.	Miscellaneous Articles.	Total No. of Articles.	No. of houses from which clothes were removed.	No. of houses disinfected.
January	—	—	21	205	203	237	—	36	23	187	1	1	10	3	108	405	112	1552	127	19
February	1	—	22	194	148	176	—	28	18	170	—	1	9	—	91	422	96	1376	108	11
March	—	—	11	160	106	180	2	28	18	162	—	1	9	3	133	381	87	1281	110	10
April	—	—	11	145	92	157	—	28	10	139	1	1	15	1	59	455	162	1276	121	21
May	1	—	27	196	138	157	1	30	45	136	2	1	10	1	40	456	168	1409	137	13
June	—	—	13	161	152	123	1	22	18	110	2	—	6	3	21	347	102	1081	117	7
July	120	—	12	159	124	82	—	26	17	66	—	1	4	—	11	241	179	1042	103	7
August	231	—	22	164	378	125	—	39	15	127	3	—	18	—	26	226	81	1455	91	12
September	—	—	13	135	98	96	3	27	10	80	—	—	4	—	13	184	113	776	88	20
October	—	—	19	204	131	165	11	32	18	121	—	—	18	—	36	419	134	1308	129	16
November	—	—	13	169	148	171	—	40	13	130	2	—	23	3	24	660	202	1598	167	14
December	1	—	14	203	121	153	—	32	10	109	—	—	11	—	22	781	281	1738	179	9
Totals	354	—	198	2095	1839	1822	18	368	215	1537	11	6	137	14	584	4977	1717	15892	1477	159

The following figures relate to the articles disinfected and the houses concerned each year since 1922—

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Articles ...	17,480	20,074	23,763	32,978	29,430	22,721	16,012	20,076	10,904	15,892
Houses concerned	1,025	1,322	1,535	2,234	2,042	1,709	1,276	1,718	1,748	1,477

TABLE XLII.

FACTORIES, WORKSHOPS AND WORKPLACES.  
YEAR 1931.

1. Inspection of Factories, Workshops and Workplaces, including  
Inspections made by Sanitary Inspectors.

PREMISES.	Inspec- tions.	NUMBER OF	
		Written Notices.	Occupiers Prosecuted
Factories (including factory laundries) ....	419	0	0
Workshops (including workshop laundries) 1,242		0	0
Workplaces (other than outworkers' premises) 725		2	0
	2,386	2	0

2. Defects found in Factories, Workshops and Workplaces.

PARTICULARS.	NUMBER OF DEFECTS.			No. of Offences in respect to which Prosecu- tions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts†—				
Want of cleanliness ....	106	106	....	....
Want of ventilation ....	1	1	....	....
Overcrowding ....	....	....	....	....
Want of drainage of floors ....	....	....	....	....
Other nuisances ....	....	....	....	....
Sanitary accommodation—				
Insufficient ....	....	....	....	....
Unsuitable or defective ....	1	1	....	....
Not separate for sexes ....	1	1	....	....
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouse (S. 101) ....	....	....	....	....
Other offences ....	....	....	....	....
(excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921).				
Total ....	109	109	....	....

Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act 1901, as remediable under the Public Health Acts.

TABLE XLIII.

## DUNDEE INFANT HOSPITAL.

*Year to 31st December 1931.*

In Hospital, 1st January 1931	....	....	....	....	28
Admitted 1931	....	....	....	....	148
					<hr/> 176
DISCHARGED—					
Relieved	....	....	....	....	90
Unrelieved	....	....	....	....	3
Taken home against advice	....	....	....	....	9
Sent to Royal Infirmary	....	....	....	....	9
Sent home for disinfection	....	....	....	....	4
					<hr/> 115
					<hr/> 61
DIED—					
Marasmus	....	....	....	....	6
Marasmus and Pneumonia	....	....	....	....	6
Gastro-Enteritis	....	....	....	....	3
Marasmus Premature	....	....	....	....	2
Congenital Heart	....	....	....	....	1
Broncho-pneumonia	....	....	....	....	4
Peritonitis	....	....	....	....	1
Bronchitis Marasmus	....	....	....	....	2
Congenital Syphilis	....	....	....	....	1
Spasmophilia	....	....	....	....	1
					<hr/> 27
In Hospital, 31st December 1931					<hr/> 34
THE CASES TREATED WERE—					
Marasmus	....	....	....	....	51
Debility	....	....	....	....	46
Debility and Blepharitis	....	....	....	....	2
Broncho-pneumonia	....	....	....	....	11
Fits	....	....	....	....	1
Rickets	....	....	....	....	5
Gastro-Enteritis	....	....	....	....	12
Bronchitis	....	....	....	....	7
Congenital Syphilis	....	....	....	....	2
Congenital Heart	....	....	....	....	1
Tuberculous Abdomen	....	....	....	....	2
Pyloric Stenosis	....	....	....	....	2
Mentally Deficient	....	....	....	....	1
Marasmus and Rickets	...	...	...	...	3
Eczema	....	....	....	....	2
					<hr/> 148
Highest Daily Number	....	....	....	....	34
Lowest Daily Number	....	....	....	....	28
Average Daily Number	....	....	....	....	32.48



TABLE XLIV.

# VENEREAL DISEASES SCHEME, 1923-24 to 1931.

Patients suffering from Venereal Diseases; attending the V.D. Centres, who :—																											
Year.	Left before completing a course of treatment.						Left after completing a course of treatment, but before final tests as to cure.						Were transferred to other centres.						Were discharged from centre after completion of treatment.						Totals.		
	Males.		Females.		Per Cent.		Both Sexes.		Males.		Females.		Per Cent.		Both Sexes.		Males.		Females.		Per Cent.						
	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	No.	Cent.	Both Sexes.	Males.	Females.		
1923-4	193	38	122	33	71	52	126	25	73	20	53	39	66	13	60	17	6	4	118	24	111	30	7	5	503	366	137
1924-5	179	28	73	20	106	39	119	19	42	11	77	29	79	12	57	15	22	8	263	41	198	54	65	24	640	370	270
1925-6	238	36	114	29	124	46	93	14	61	16	32	11	72	11	52	13	20	7	263	39	162	42	101	36	666	389	277
1926-7	216	32	88	24	128	41	104	15	38	10	66	21	88	13	64	18	24	8	268	40	174	48	94	30	676	364	312
1927-8	160	24	58	15	102	38	86	13	48	12	38	14	109	17	77	20	32	12	306	46	209	53	97	36	661	392	269
1928-9	163	27	77	19	86	39	87	14	50	13	37	17	88	14	70	18	18	8	278	45	200	50	78	36	616	397	219
1929-30	139	18	49	11	90	28	76	10	34	8	42	13	116	15	69	15	47	14	447	57	300	66	147	45	778	452	326
1930-31	152	19	55	11	97	32	111	14	57	11	54	18	140	17	96	19	44	15	406	50	303	59	103	35	809	511	298
1931	150	19	56	11	94	32	118	15	57	11	61	21	141	17	94	19	47	16	389	49	300	59	89	31	798	507	291



TABLE XLVII.

Doses of Arseno-Benzol Compounds Issued.

		Treatment Centre.	Other Institutions.	Medical Practitioners.	Total
1919	...	1,958	13	141	2,112
1920	....	6,362	18	472	6,852
1921	...	6,280	239	358	6,877
1922	....	5,135	239	239	5,613
1923	....	5,224	198	123	5,545
1924	....	3,887	275	504	4,666
1925	....	2,836	341	398	3,575
1926	....	2,286	264	423	2,973
1927	....	2,826	18	272	3,116
1928	....	2,997	154	253	3,404
1929	....	3,673	235	342	4,250
1930	....	6,884	380	388	7,652
1931	....	3,362	113	327	3,802

TABLE XLVIII.

LABORATORY WORK—The following examinations were carried out under the V.D. scheme during each of the last ten years :—

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Wassermann Tests	3,573	3,418	3,261	3,513	3,060	3,619	4,107	4,177	4,588	4,419
Microscopical and other Examinations	610	1,555	1,657	1,723	1,898	2,269	2,064	3,337	3,128	2,830
	4,183	4,973	4,918	5,236	5,558	5,888	7,071	7,514	7,716	7,249

TABLE XLIX.  
UN SOUND FOOD. ALL SEIZED AT PUBLIC SLAUGHTER-HOUSES.

Number of Seizures, Weight (in lbs.) of Meat Seized and reasons for Seizure, for Year ending 31st December 1931.

DISEASE.	BEEF.			MUTTON.			PORK.			TOTAL.	
	Number.	Weight.		Number.	Weight.		Number.	Weight.		Number.	Weight.
(a) Tuberculosis ....	2,063	159,928	...	—	—	...	88	3,412	...	2,151	163,340
(b) Other Diseases :—											
Abscesses, Tumours, and Cysts ....	402	1,234	...	11	50	...	63	139	...	476	1,423
Actinomycosis ....	100	667	...	—	—	...	—	—	...	100	667
Asphyxiation ....	2	1,604	...	1	66	...	—	—	...	3	1,670
Decomposition ....	21	1,931	...	20	366	...	2	69	...	43	2,366
Dropsical Conditions ....	16	2,439	...	132	1,652	...	3	72	...	151	4,163
Fevered Conditions ....	62	11,708	...	237	4,048	...	13	725	...	312	16,481
Fractures and Bruises ....	78	5,324	...	37	437	...	23	653	...	138	6,414
Inflammation of Abdominal Organs	157	2,684	...	73	331	...	6	97	...	236	3,112
Jaundice ....	—	—	...	1	102	...	—	—	...	1	102
Melanosis ....	2	126	...	—	—	...	—	—	...	2	126
Pneumonia ....	69	2,011	...	25	542	...	10	32	...	104	2,585
Rheumatism ....	15	1,450	...	6	35	...	1	3	...	22	1,488
Septic Conditions ....	11	3,313	...	19	636	...	2	133	...	32	4,082
Uraemia ....	1	813	...	3	222	...	1	61	...	5	1,096
Wasted Conditions ....	2	—	...	28	54	...	1	—	...	31	54
Totals	3,001	195,232	...	593	8,541	...	213	5,396	...	3,807	209,169

TABLE L.

Shows the number of the different kinds of Animals slaughtered at the Public Slaughter-houses each month during 1931, also the number of their carcasses found to be Diseased or Unsound, and the weight of each class seized and destroyed.

MONTH.	Animals Slaughtered.				Number of their Carcasses Diseased or Unsound.				Weights (in lbs.) condemned from Carcasses of Animals Slaughtered on the Premises.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1931.													
January	1,217	3	2,211	308	309	1	45	9	14,924	51	264	339	15,578
February	1,081	3	2,251	293	306	—	120	10	12,825	—	481	309	13,615
March	1,184	11	1,925	325	309	1	111	21	10,939	2	426	364	11,731
April	1,169	3	1,945	263	292	—	114	11	15,960	—	541	133	16,634
May	1,118	3	1,800	180	318	—	79	16	17,400	—	757	113	18,270
June	1,213	6	1,961	176	309	—	61	30	10,864	—	246	278	11,388
July	1,126	5	1,940	130	274	—	63	9	9,765	—	290	43	10,098
August	1,186	4	2,050	129	335	—	61	13	13,189	—	306	250	13,745
September	1,192	8	2,158	252	330	1	81	27	18,742	16	148	448	19,354
October	1,227	6	2,241	359	299	—	112	21	12,192	—	214	219	12,625
November	1,140	10	2,090	405	296	3	152	19	21,619	66	259	612	22,556
December	1,324	4	2,283	527	330	—	101	23	14,589	—	131	823	15,543
Totals	14,177	66	24,855	3,347	3,707	6	1,100	209	173,008	135	4,063	3,931	181,137



TABLE LI.

Shews the numbers of the different kinds of Carcases, dressed and undressed, brought to the Slaughter-houses, each month during 1931, with the numbers found to be Diseased or Unsound, and the weight of each class seized and destroyed on that account.

MONTH.	Carcases Brought In.				Number of them Diseased or Unsound.				Weight (in lbs.) Seized and Condemned from Carcases brought in.			
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Mutton.	Pork.	Total.
1931.												
January	335	1	652	19	11	—	15	1	2,212	239	30	2,481
February	328	—	252	40	5	—	60	2	2,138	902	62	3,102
March	304	6	519	52	12	1	39	3	3,311	819	81	4,216
April	350	2	868	27	12	—	31	2	2,664	504	309	3,477
May	450	3	700	35	16	1	18	4	1,830	568	378	2,813
June	327	7	449	28	15	1	9	1	2,679	153	2	2,870
July	350	1	716	16	6	—	4	1	305	73	64	442
August	415	1	411	12	15	1	6	2	1,396	231	32	1,757
September	283	—	616	15	5	—	9	1	331	208	69	608
October	342	3	372	18	5	—	7	1	1,511	132	28	1,671
November	292	—	312	15	9	—	12	1	753	250	220	1,223
December	302	—	1,193	16	13	—	11	1	2,783	399	190	3,372
Totals	4,078	24	7,060	293	124	4	221	20	21,913	4,478	1,465	28,032
Table L.	14,177	66	24,855	3,347	3,707	6	1,100	209	173,008	135	4,063	181,137
Total of Tables L. & LI.	18,255	90	31,915	3,640	3,831	10	1,321	229	194,921	311	8,541	209,169

TABLE LII.

The following is a synopsis of the Organs seized and condemned in addition to the foregoing at the Slaughter-houses for the full year :—

CATTLE ORGANS.			SHEEP ORGANS.			PIGS' ORGANS.		
Cows' Udders	845		Livers	....	28	Udders	....	32
Livers	....	2,101	Plucks	....	425	Plucks	....	100
Lungs	....	2,250	Kidneys	....	946	Kidneys	....	114
Hearts	....	848	Lungs	....	617	Livers	....	58
Kidneys	....	2,079				Lungs	....	20
Heads	....	734	Total	....	2,016			
Tongues	....	774				Total	....	324
Skirts	....	2,082						
Total	....	11,713						

## TINNED AND FROZEN MEAT SEIZED FOR DECOMPOSITION.

Frozen Meat	....	....	....	54 lbs.
Frozen Ox Livers	....	....	....	30 „
Frozen Ox Kidneys	....	....	....	36 „
Total	....	....	....	120 lbs.

The number of Carcases wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

Year.	Bulls.	Bullocks.	Heifers.	Cows.	Calves.	Sheep.	Pigs.	Total.
1927	113	908	16	429	—	—	86	1,552
1928	170	943	16	571	2	—	158	1,860
1929	168	1,198	31	678	2	—	92	2,169
1930	156	1,186	19	609	1	—	60	2,031
1931	190	1,239	16	618	—	—	88	2,151

Statement showing number of animals slaughtered, wholly condemned partially condemned, and weight (in lbs.) of Meat condemned during the year 1931.

Class of Animal.	Number of Animals.			Weight (in lbs.) of Condemned Meat.
	Slaughtered.	Wholly Condemned.	Partially Condemned.	
Cattle	.... 14,243	154	3,559	173,143
Sheep	.... 24,855	48	1,052	4,063
Pigs	.... 3,347	12	197	3,931

TABLE LIII.

The totals for the years 1911 to 1930 (excluding 1915 to 1918) were :—

Year.	Carcases Examined				Numbers Diseased or Unsound.					Weight (in lbs.) of Meat Seized and Condemned.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.		Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1911	19,015	561	40,611	4,132	582	33	179	55	154,380	1,851	7,322	6,657	170,210	
1912	18,836	574	38,896	4,339	573	39	173	71	150,502	2,194	7,160	7,106	166,962	
1913	19,206	515	34,929	2,744	633	45	131	24	155,996	2,115	5,807	2,086	166,004	
1914	18,664	427	34,672	3,401	549	38	156	52	134,341	1,811	6,595	3,624	146,371	
1919	19,743	268	38,156	4,381	463	45	228	95	135,692	2,328	8,281	1,494	147,795	
1920	20,933	250	29,795	2,386	627	51	170	58	174,715	2,955	6,707	5,931	190,308	
1921	17,914	182	26,357	2,717	633	32	214	52	144,858	2,278	9,353	4,572	161,061	
1922	18,825	207	31,139	4,199	879	38	350	120	188,971	1,762	13,537	6,974	211,244	
1923	18,756	138	26,286	3,570	958	33	318	113	219,803	2,022	12,319	8,362	242,506	
1924	18,276	184	25,691	4,037	1,382	18	485	242	209,771	714	13,219	9,875	233,579	
1925	18,139	198	25,831	3,669	1,561	11	344	141	165,533	578	8,321	5,449	179,881	
1926	17,469	145	28,416	2,586	3,161	22	523	127	203,663	1,043	8,491	5,605	218,802	
1927	18,224	147	33,983	3,058	3,263	28	778	182	184,577	949	8,191	3,943	197,660	
1928	19,328	126	31,697	4,171	2,801	19	1,262	298	163,617	1,115	6,920	6,741	178,393	
1929	18,244	126	31,971	3,443	3,482	29	1,682	179	160,319	639	7,099	3,404	171,461	
1930	18,689	88	31,590	2,996	3,653	19	1,133	299	170,738	328	9,144	4,510	184,720	

TABLE LIV.  
(Hospitals. Form 1.)

RETURN OF HOSPITALS, ETC., MANAGED BY DUNDEE TOWN COUNCIL (EXCLUDING ASYLUMS FOR CERTIFIED INSANE). YEAR, 1931.

**I. KING'S CROSS HOSPITAL, WEST CLEPINGTON ROAD, AND SMALLPOX HOSPITAL, M'ALPINE ROAD, DUNDEE.**

Maintained under Public Health Acts.

Patients from the Counties of Angus and Perth (Puerperal cases and occasionally women V.D. cases) are accepted by arrangement.

<i>Classification of Accommodation.</i>	<i>Beds.</i>		<i>Total.</i>
	<i>Males.</i>	<i>Females.</i>	
Respiratory Tuberculosis ....	30	30	60
Smallpox ....	—	—	80
All other infectious diseases, including V.D., if required ....	—	—	190

*Note* :—Cases of non-pulmonary tuberculosis are occasionally admitted, but no special accommodation is set aside for that purpose.

**A. In-Patients.**

1. Total number of admissions ....	1,264
2. Total number of patients discharged ....	1,109
3. Total number of deaths ....	155
4. Average duration of stay of patients included in No. 2 and No. 3, above ....	40 days.
5. Number of beds occupied—Average during year ....	140
Highest—191 on 25th December.	
Lowest—101 on 24th August.	
6. Number of surgical operations :—	
(a) Under general or spinal anaesthesia ....	97
(b) Other operations ....	25

**B. Out-Patients.**

No provision made.

Table LIV.—Continued.

## Equipment.

One side room of a pavilion is equipped as an operating theatre, more especially for puerperal conditions requiring surgical treatment.

There is no X-Ray equipment.

The Hospital possesses four carbon arc lamps, one mercury vapour lamp, and one radiant heat lamp.

There is no orthopaedic equipment.

One side room of the diphtheria pavilion is equipped with incubator and serum inspissator—mainly used for the diagnosis of diphtheria.

## Staffing.

## A. MEDICAL.

*Visiting.**Resident.*

The Medical Officer of Health.	1 Senior Resident Medical Officer.
--------------------------------	------------------------------------

The Chief Tuberculosis Medical Officer.	1 Junior Resident Medical Officer.
---	------------------------------------

The Assistant Medical Officer of Health.

1 Visiting Aurist.

1 Visiting Gynaecologist.

Other consultants called in when required.

Ear, Nose, and Throat Specialist and Gynaecologist are paid fixed part-time salaries.

## B. NURSING.

*Matron or Super-**intendent  
of Nurses.**Trained  
Nurses.**Probationers.*

Numbers	....	....
---------	------	------

1

9

41

Average No. of hours of duty per week
--

—

59 hrs.	Day Nurses—62½ hrs.
	Night „ —79 „

(“ Days Off ” are not included in calculation.)

Approved for the training of fever nurses.



Table LIV.—Continued.

## II. MARYFIELD HOSPITAL, MAINS LOAN, DUNDEE.

Maintained under the Poor Law Acts.

Patients from the County of Angus (excluding Arbroath) are accepted by arrangement.

Classification of Accommodation.	Beds.			Total.
	Males.	Females.	Children under 10.	
General Medical ....	32	32	14	78
General Surgical ....	30	30	—	60
Chronic Sick (and Aged and Infirm) ....	64	87	—	151
Maternity ....	—	4	—	4
Psychiatric ....	—	10	10	20
Special Departments—				
Dermatological ....	8	7	—	15

*Note* :—This classification is not by any means rigidly adhered to and shows rather the position of the Institution. There are, for example, seldom anything like 60 surgical patients in the Hospital, the so-called surgical wards being shared by medical patients and the chronic sick.

## A. In-Patients.

1. Total number of admissions .... 1,560
2. Total number of patients discharged .... 1,243
3. Total number of deaths .... 299
4. Average duration of stay of patients included in Nos. 2 and 3, above .... 65·47 days
5. Number of beds occupied—Average during year .... 320·36  
Highest—349 on 24th January.  
Lowest—290 on 30th June.
6. Number of surgical operations :—
  - (a) Under general or spinal anaesthesia .... 48
  - (b) Other operations .... 4

## Table LIV.—Continued.

**B. Out-Patients.**

No provision made.

**Equipment.**

One Theatre with table and sterilising room.

Good supply of instruments and general equipment.

Only a mercury vapour lamp for treatment with artificial sunlight.

There is no orthopaedic equipment.

A small laboratory for clinical work in connection with wards, also laboratory in connection with mortuary.

**Staffing.****A. MEDICAL.***Visiting.*

One Surgeon.

One Gynaecologist.

One Dentist.

*Resident.*

One full-time Medical Officer with residence near the Hospital.

Two Resident Assistant Medical Officers.

**B. NURSING.**

	<i>Matron or Super- intendent of Nurses.</i>	<i>Trained Nurses.</i>	<i>Probationers.</i>
--	--	----------------------------	----------------------

Numbers	....	....	....	1	16	40
Average No. of hours of duty per week	....	....	....	—	60 hrs.	60 hrs.

Approved training school for nurses.

**III. ASHLUDIE SANATORIUM, MONIFIETH, ANGUS.**

Maintained under Public Health Acts.

Patients from Arbroath accepted by arrangement.

<i>Classification of Accommodation.</i>	[ <i>Beds.</i> ]		
	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Respiratory Tuberculosis	....	....	....
	32	32	64

*Note* :—Cases of non-respiratory tuberculosis are occasionally admitted, but no special accommodation is set aside for that purpose.

Table LIV.—Continued.

**A. In-Patients.**

1. Total number of admissions	....	....	88	
2. Total number of patients discharged	....		84	
3. Total number of deaths	....	....	6	
4. Average duration of stay of patients included in Nos. 2 and 3, above	....		238 days.	
5. Number of beds occupied—Average during the year	....	....	60	
			Highest—64 on several occasions.	
			Lowest—53 on 26th June.	
6. Number of surgical operations :—				
(a) Under general or spinal anaesthesia	....	....	1	
(b) Other operations	....	....	345	(mainly artificial pneumothorax refills).

**B. Out-Patients.**

No provision made.

**Equipment.**

An operating theatre is in course of construction, and accommodation for X-Ray installation is also in course of construction.

There is a small laboratory equipped only for microscopical examinations. (Extensions and improvements to this are intended.)

**Staffing.****A. MEDICAL.***Visiting.**Resident.*

The Chief Tuberculosis Medical Officer      One Resident Medical Officer.

Consultants called in when required.

**B. NURSING.**

*Matron or Super-Trained.  
intendent  
of Nurses.*

*Nurses.**Probationers.*

Numbers ....

1

2

7

Average number of  
hours of duty per  
week ....

—

59½ hrs. Day Nurses—59½ hrs.  
Night „ —80½ hrs.

Table LIV.—Continued.

#### IV. PUBLIC HEALTH INSTITUTE, 55 CONSTITUTION ROAD, DUNDEE.

Maintained under Public Health Acts.

Patients from the Counties of Angus and Fife accepted by arrangement.

Classification of Accommodation.	Beds.			
	Males.	Females.	Children under 10 years.	Total.
Veneral Diseases	12	—	—	12
Out-Patient Provision—Venereal Diseases Clinics (for both males and females).				

##### A. In-Patients.

1. Total number of admissions	....	....	....	....	35
2. Total number of patients discharged	....	....	....	....	34
3. Total number of deaths	....	....	....	....	Nil.
4. Average duration of stay of patients included in Nos. 2 and 3, above	....	....	....	....	34 days.
5. Number of beds occupied—Average during year	....	....	....	....	3
Highest—12 on 12th February.					
Lowest—1 on 9th July. (Sometimes no In-Patients).					
6. Number of surgical operations	....	....	....	....	Nil.

##### B. Out-Patients.

1. Total number of persons seen in the out-patient department	....	....	....	1,967 (V.D. only).
2. Total number of attendances in the out-patient department	....	....	....	41,437 (male and female patients).

##### Equipment.

There is an X-Ray Plant and Diathermy apparatus.

##### Staffing.

###### A. MEDICAL.

###### Visiting.

One Special Medical Officer, Venereal Diseases Scheme.

###### Resident.

—

###### B. NURSING.

###### Matron or Super- Trained

intendent Nurses. Probationers.  
of Nurses.

Numbers	....	....	....	} Nursing Staff, V.D. Scheme.
Average number of hours of duty per week	....	....	....	



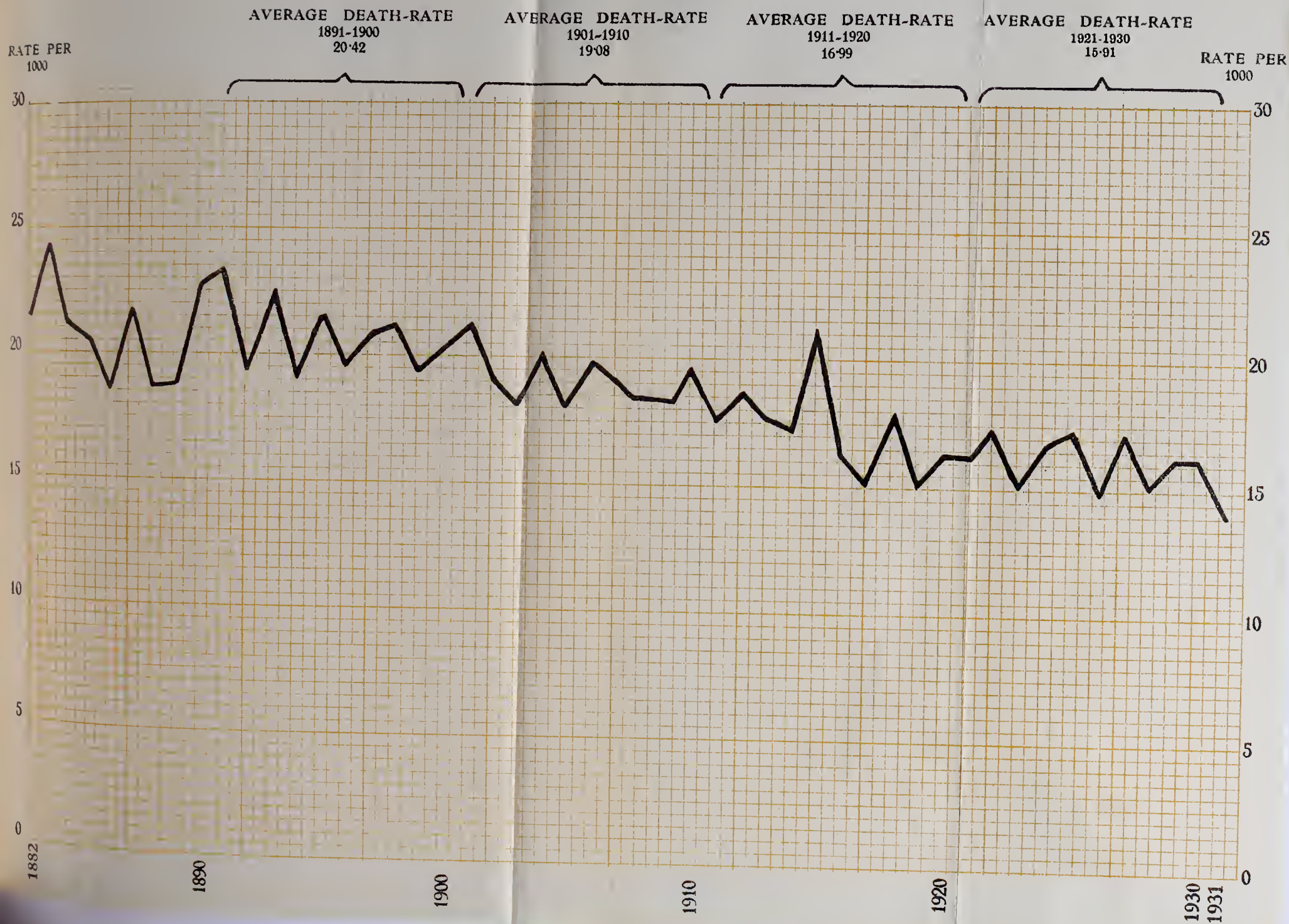
# CITY OF DUNDEE

1

## DEATH RATE per 1000 Population

(at all ages and from all causes)

1882-1931







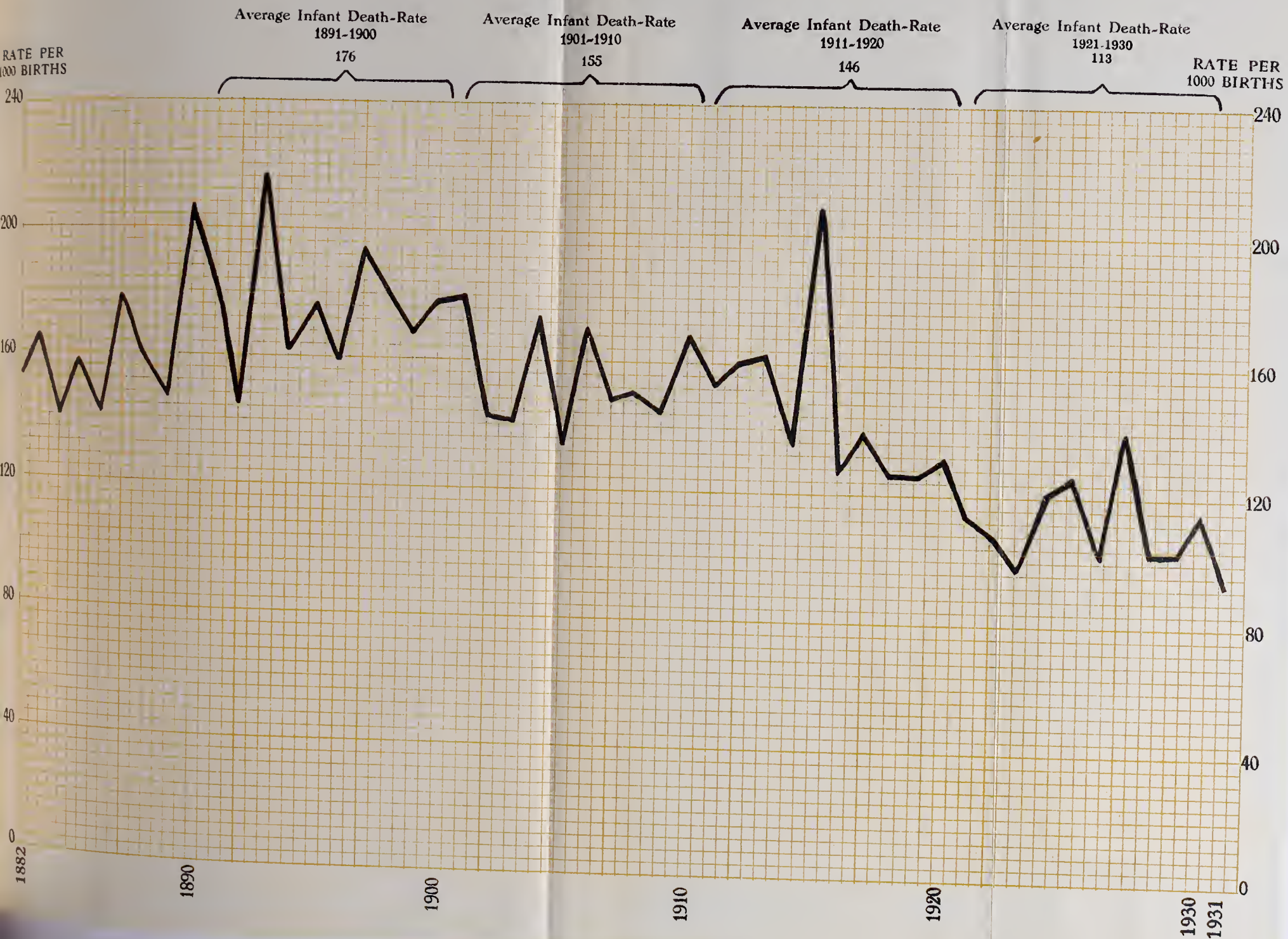
# CITY OF DUNDEE

2

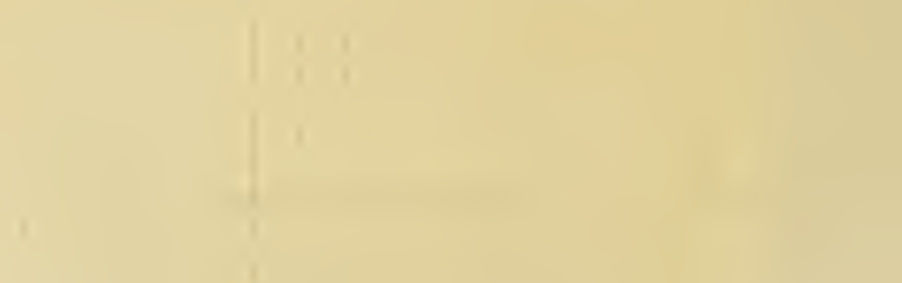
## INFANT MORTALITY

INFANT DEATHS (under 1 Year) PER 1000 BIRTHS

1882-1931



1941





# CITY OF DUNDEE

3

## PULMONARY TUBERCULOSIS

DEATH RATE per 1000 Population

1882-1931

AVERAGE DEATH-RATE  
1891-1900  
2.26

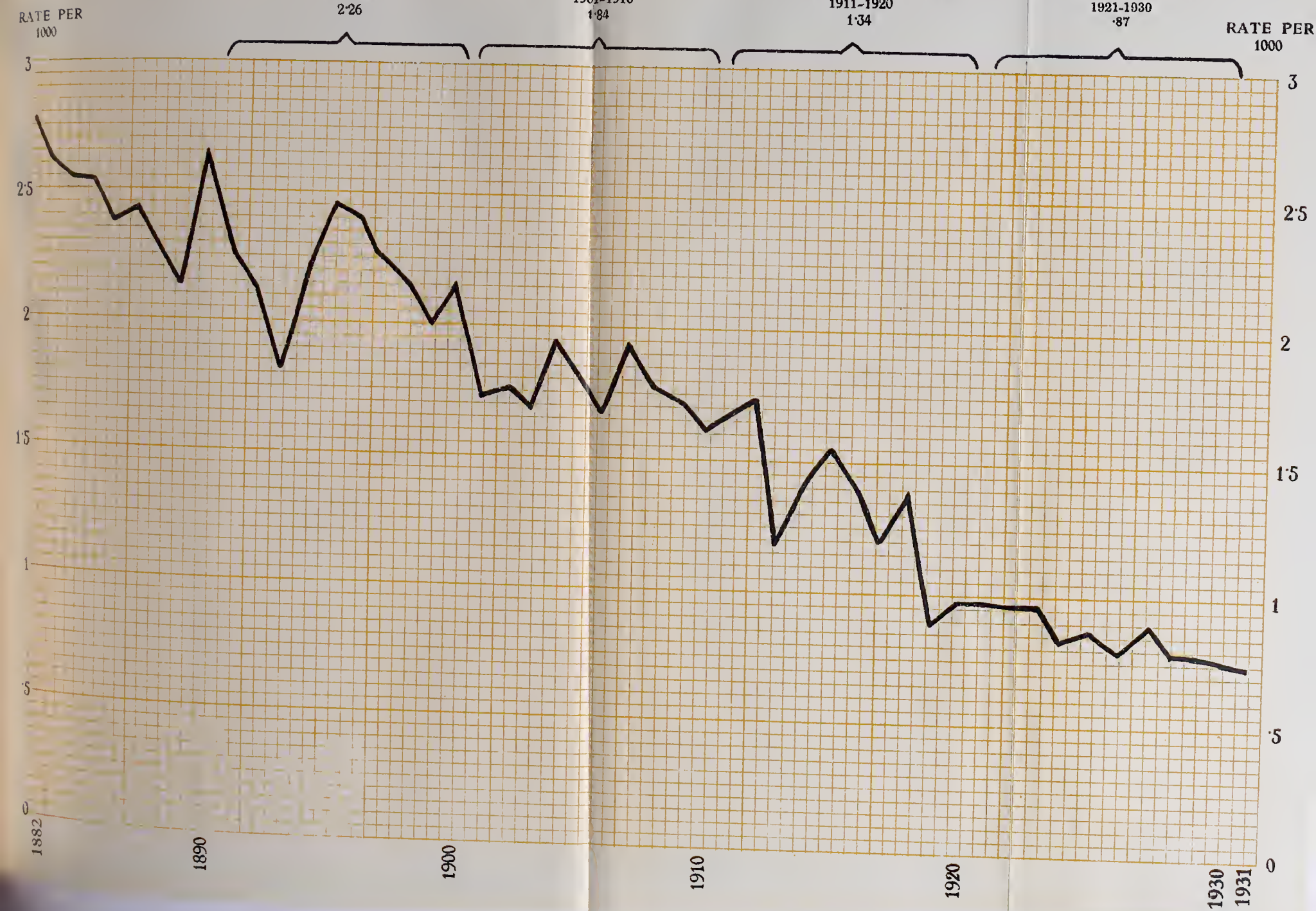
AVERAGE DEATH-RATE  
1901-1910  
1.84

AVERAGE DEATH-RATE  
1911-1920  
1.34

AVERAGE DEATH-RATE  
1921-1930  
.87

RATE PER  
1000

RATE PER  
1000



PULMONA

DEATH R

10/10/1918





# CITY OF DUNDEE

4

## BIRTH RATE per 1000 Population

1882-1931

AVERAGE BIRTH-RATE

1891-1900

29.96

AVERAGE BIRTH-RATE

1901-1910

27.75

AVERAGE BIRTH-RATE

1911-1920

22.15

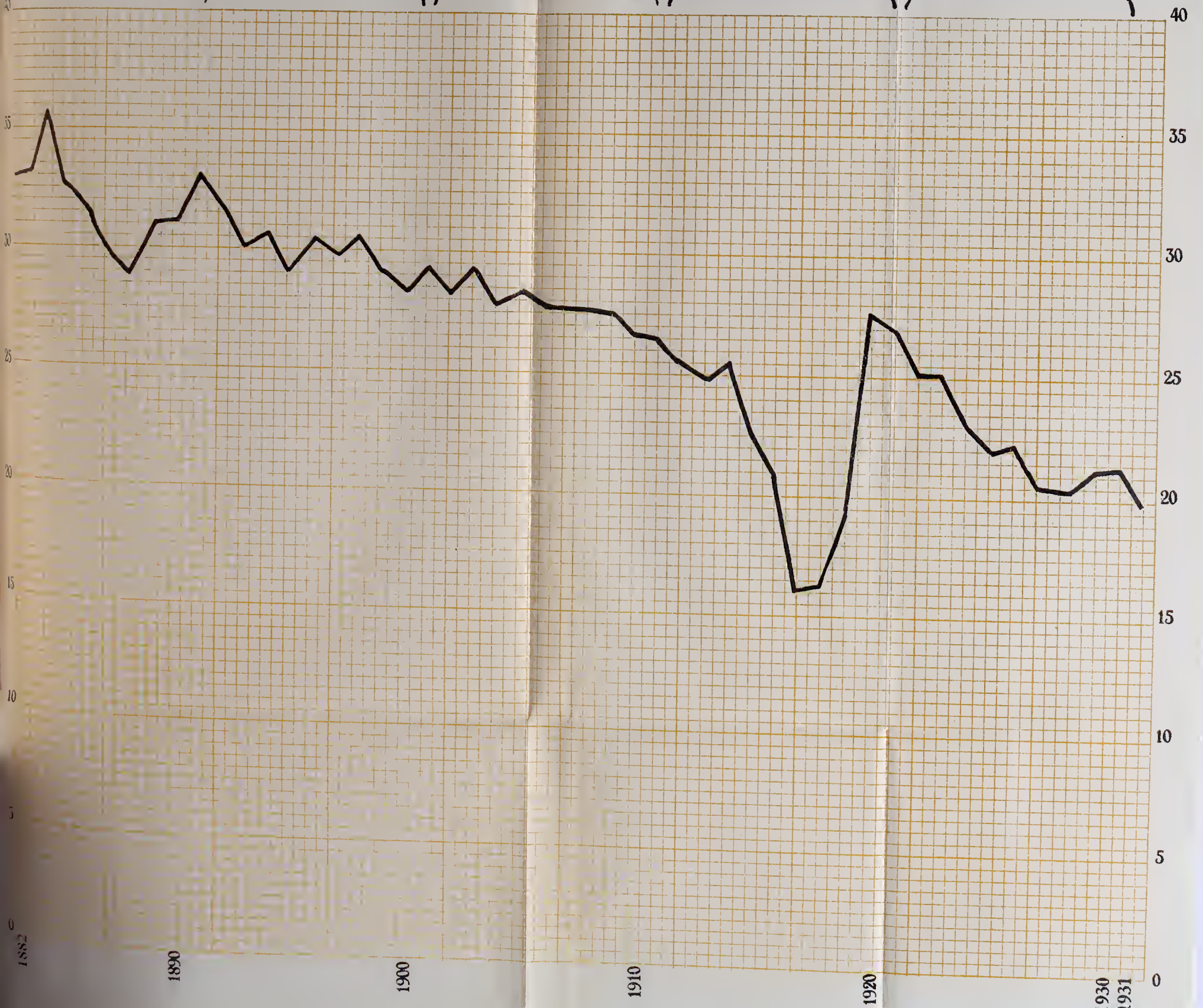
AVERAGE BIRTH-RATE

1921-1930

22.47

RATE PER  
1000

RATE PER  
1000

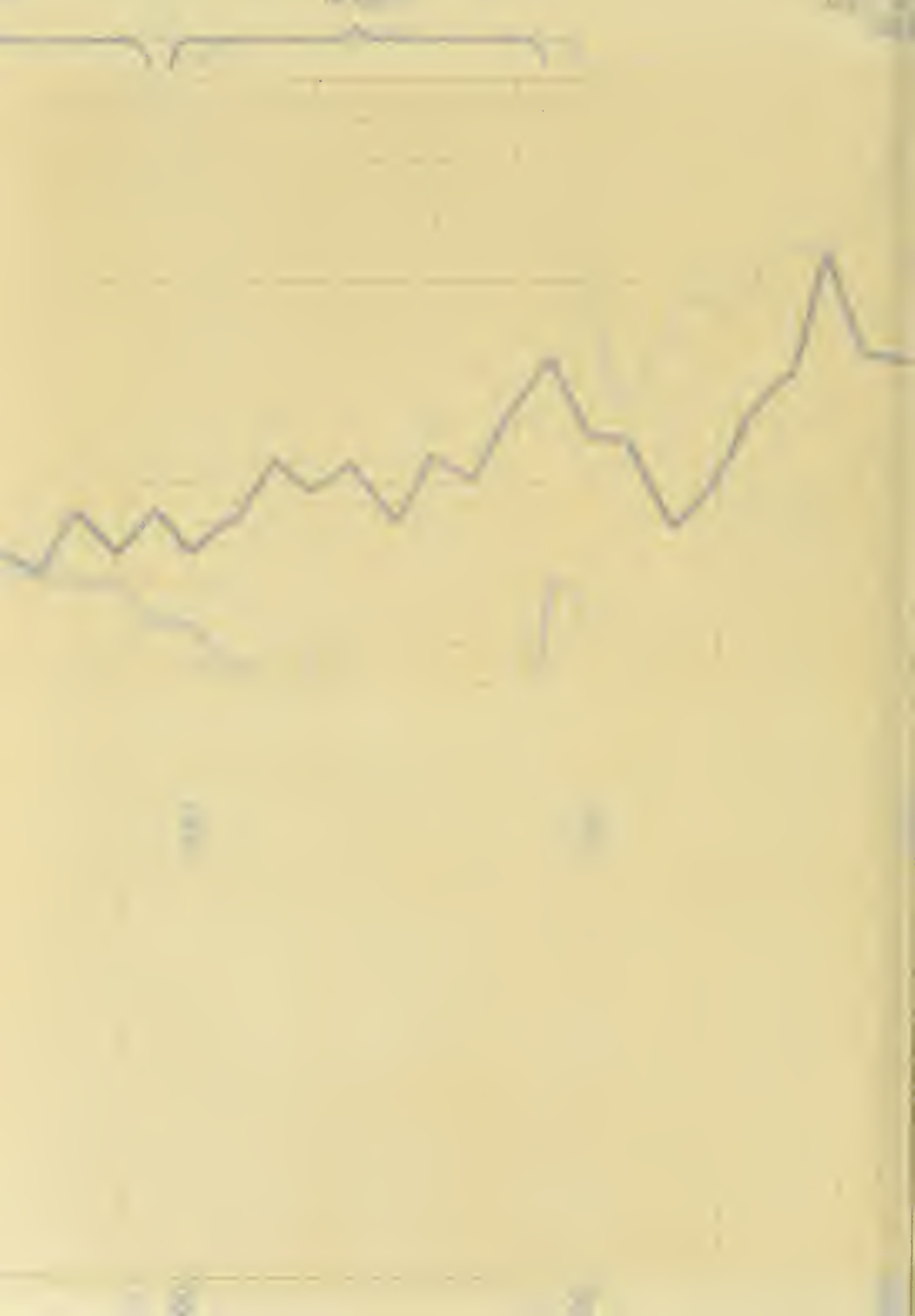


# BIRTH RATE

18

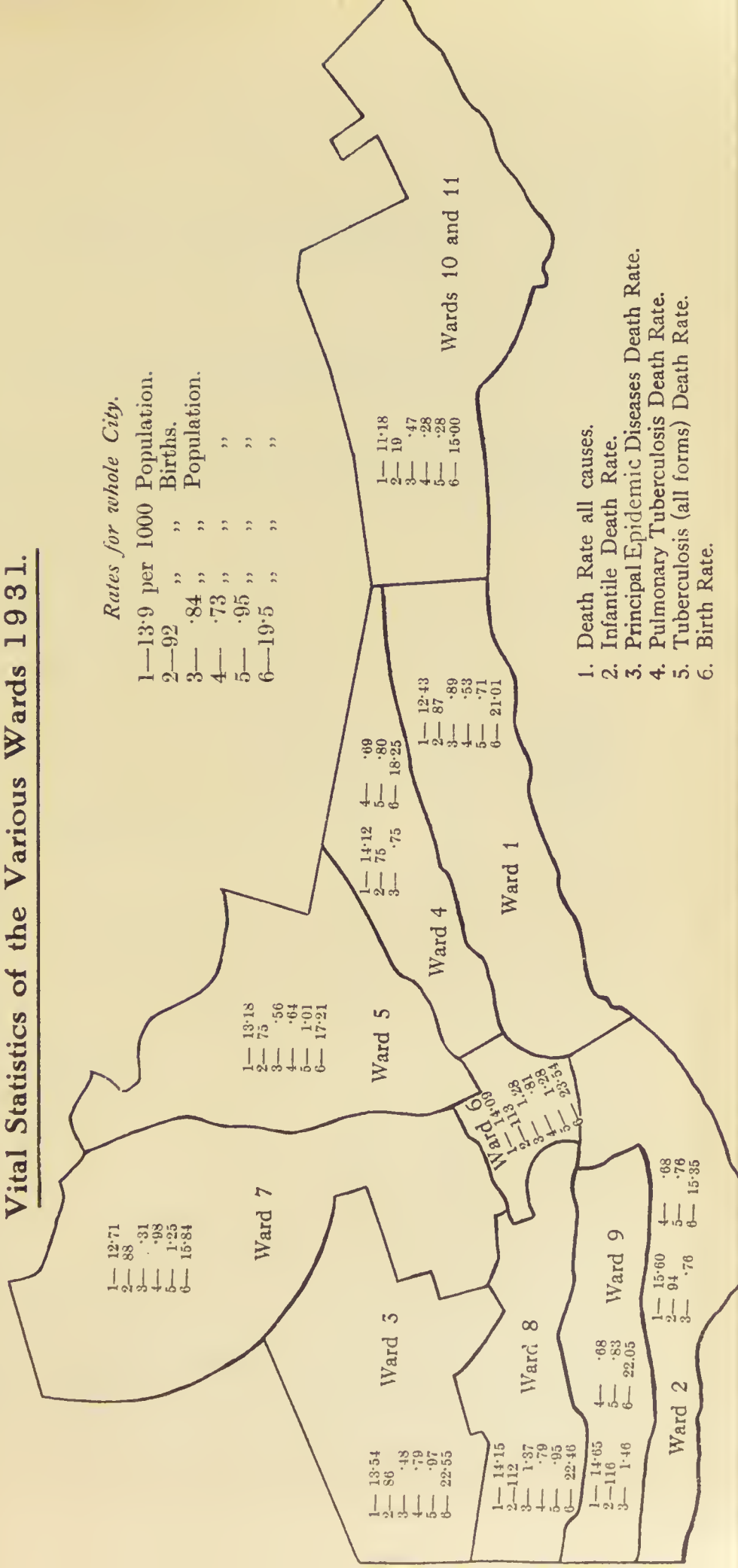
AVERAGE BIRTH RATE

1900-1910



# CITY OF DUNDEE.

## Vital Statistics of the Various Wards 1931.







## KING'S CROSS HOSPITAL.

REPORT BY DR. DAVID M. KEAY,  
Senior Resident Medical Officer.

During the year under consideration 1,151 cases of infectious diseases and 118 cases of tuberculosis were admitted to the hospital.

The average daily number in cases of ordinary infectious diseases was 88·76 and in cases of tuberculosis 51·25.

The highest daily number of all patients was 190 on December 25th and the lowest was 101 on August 24th.

Below is a table of all patients treated during the year :—

Disease.	In Hospital on Dec. 31st, 1930.	Admitted during year.	Discharged during year.	Died during year.	Remaining in Hospital on Dec. 31st, 1931.
Diphtheria and Membranous Croup	50	352	353	17	32
Erysipelas ....	7	99	89	12	5
Scarlet Fever ....	11	175	168	—	18
Enteric Fever ....	1	15	15	1	—
Measles ....	—	70	66	4	—
Whooping Cough ....	5	70	58	14	3
Chicken-pox ....	1	5	6	—	—
Cerebro Spinal Fever ....	—	11	7	4	—
Encephalitis Lethargica ....	—	—	—	—	—
Ophthalmia Neonatorum ....	—	9	8	—	1
Pneumonia, Lobar ....	2	25	23	3	1
Pneumonia, Broncho ....	25	227	167	38	47
Puerperal Fever ....	4	56	51	7	2
Venereal Disease ....	—	10	6	—	4
Dysentery ....	1	4	4	—	1
Whooping Cough, Measles, and Broncho Pneumonia ....	—	4	4	—	—
Diphtheria - Scarlet Fever ....	2	4	4	—	2
Observation Case (T.B. Meningitis)	—	1	—	1	—
Chicken-pox - Measles ....	—	1	—	1	—
Chicken-pox - Scarlet Fever ....	—	1	1	—	—



Pneumonia - Scarlet Fever	....	—	1	—	—	1
Measles - Scarlet Fever	....	—	1	1	—	—
Influenza	....	....	2	2	—	—
Bronchitis	....	....	1	1	—	—
Suspected Smallpox	....	....	3	3	—	—
Baby with Puerperal Case	....	—	1	1	—	—
Cellulitis Face	....	....	1	1	—	—
Jaundice (Arseno Benzol Poisoning)	—	—	1	1	—	—
Arsenical Dermatitis	....	....	1	1	—	—
<hr/>						
Total Infectious Diseases	....	109	1,151	1,041	102	117
Tuberculosis	....	55	118	71	53	49
<hr/>						
Totals	....	164	1,269	1,112	155	166
<hr/>						

Average Daily number of Patients	....	140·07	
Highest Daily number of Patients	....	190·00	December 25th.
Lowest Daily number of Patients	....	101·00	August 24th.

Patient Days—Infectious Diseases	....	32,408
Tuberculosis	....	18,719
<hr/>		
Total	....	51,127
<hr/>		

The case mortality for cases of ordinary infectious diseases treated during the year was 8·92% and for tuberculosis 42·74%.

### Diphtheria.

During the year 353 patients admitted with a provisional diagnosis of diphtheria were discharged from the hospital, but in 96 of those the diagnosis on admission was not confirmed, the final diagnosis proving as follows :—

Tonsillitis	....	....	....	....	52
Broncho Pneumonia	....	....	....	....	9
Non-Diphtheritic Laryngitis	....	....	....	....	5
Vincent's Angina	....	....	....	....	4
Scarlet Fever	....	....	....	....	4
Pharyngitis	....	....	....	....	3
No apparent disease	....	....	....	....	3
Infection of Tonsillar Beds	....	....	....	....	2
Peritonsillar Abscess	....	....	....	....	2

The remaining 12 cases were of otitis media, bronchitis, T.B. meningitis, rickets, measles, infestation with oxyuris vermicularis, syphilitic tongue, whooping cough, lobar pneumonia, foreign body (Nasal cavity), marasmus, and suspected diphtheria carrier.

Of the unconfirmed cases 4 died. These suffered from broncho pneumonia (2), lobar pneumonia, and tuberculous meningitis.

Of the 257 confirmed cases 13 died, but one of these was admitted from the County of Angus and is not included in our statistics.

To the number of fatal cases must be added three others, two of which were admitted as whooping cough and broncho pneumonia and the other as measles. This gives a case mortality of 5·79%.

The average number of days in the hospital of fatal cases of ordinary diphtheria, excluding a case which died of sudden cardiac failure on the 49th day, was 4 days.

## Methods of Administration and Doses of Antitoxin.

### Administration.

Two methods are practised—intramuscular and intravenous.

In this hospital the intramuscular method is the method of choice. It must be admitted that *prima facie* the intravenous is the better method of administration, for the whole of the antitoxin can be introduced at once into the circulation, and is immediately available for the neutralisation of any toxin circulating in the blood stream. This, however, is not always an easy task, and is really unnecessary except in cases of severe toxæmia.

The intravenous method is reserved for cases in which it is necessary to act with extreme rapidity, the absorption of antitoxin being immediate. By reason of the rapidity of its elimination, the injection is followed by a second injection, which is always intramuscular.

### Dosage.

There has always been and always will be a diversity of opinion on this subject. Massive doses up to 100,000 units have been tried, but we have been forced to the conclusion that any amount over 50,000 units, even when spread over two or three days is wasted, and in the majority of cases a dose of antitoxin from 6,000-10,000 units is sufficient.

The usual practice is to give an initial dose varying from 6,000-10,000 units, depending on the severity of the case. If there is no improvement next day, or if the membrane has extended, a further and similar dose is given. Only in very few cases has a third injection been necessary.

### Dosages given during the year.

Under 6,000 units	....	....	... 11 patients
6,000- 10,000 units	....	....	77 „
10,000- 20,000	„	....	98 „
20,000- 50,000	„	....	44 „
50,000- 75,000	„	....	17 „
75,000-100,000	„	....	11 „
over 100,000 units	....	....	1 patient

Antitoxin units now recommended in King's Cross Hospital to be given in various types of diphtheria.

Type of Disease.	If admitted on		If not admitted until		
	1st day.	2nd day.	3rd day.	4th day or later.	
Mild Faucial ....	6,000	6,000	6,000	10,000	
Moderate Faucial ....	8,000	10,000	16,000	20,000	
Severe, Severe Faucial, and Laryngeal ....	20,000	30,000	30,000	40,000	
Very Severe Faucial ....	30,000	40,000	50,000	50,000	
Laryngeal only ....	20,000	20,000	20,000	20,000	
Nasal only ....	6,000	6,000	6,000	10,000	

### Notes on above Table.

- (a). In very severe cases, where large doses of antitoxin are to be given, it is advisable to give part of the dose (say 20,000 units) by the intravenous route. Otherwise all administration of antitoxin should be intramuscular.
- (b). A dose of 2,000 units will usually suffice for a doubtful case which has not been definitely accepted as diphtheria, provided there is *only a slight disturbance of health*.
- (c). A second dose, equal to the original dose, may be given on the following day if there are no signs of improvement.

### Type of Disease.

In the table below the cases are classified according to the type of disease.

Type.	No. of Cases.	No. of Deaths.	Case Mortality.
Faucial ....	232	9	3.9%
Faucial and Laryngeal ....	13	3	23.0%
Laryngeal only ....	13	3	23.0%
Nasal and Laryngeal ....	1	—	—

### Laryngeal Diphtheria.

The operation of tracheotomy was performed for laryngeal obstruction in 6 cases, of which 4 died, giving a case mortality of 66·6%.

### Typing of the Diphtheria Bacillus.

Recently, M'Leod of Leeds has discovered that the bacillus of diphtheria can be divided culturally into 2 types—a mitis and a gravis, so named because of their prognostic significance. Professor Tulloch has carried out similar investigations during the past few months on positive swabs occurring in this hospital. The number of cases of the gravis type that have been treated here have been far too few for us to form any definite opinion, but judging from the few cases that have occurred, the differentiation seems to be a bacteriological one with little clinical significance. (April 1932.)

### Scarlet Fever.

During the year 168 patients admitted with this diagnosis were discharged, but in 33 cases the provisional diagnosis was not confirmed, the final diagnosis proving to be as follows:—

Septic Rash	....	....	....	....	....	7
Tonsillitis	....	....	....	....	....	6
Measles	....	....	....	....	....	3
No apparent disease	....	....	....	....	....	3
Faucial Diphtheria	....	....	....	....	....	2
Teething Rash	....	....	....	....	....	2
Pneumonia	....	....	....	....	....	2

The remaining 8 cases were of bronchitis, picric rash, food rash, rubella, whooping cough, colon stasis, nasal catarrh, and pharyngitis.

Scarlet fever as met with in Dundee continues to be of a very mild type. Only one case of septic scarlet occurred during the year. All the cases recovered and complications were very rare. Four cases suffered from persistent rhinitis, 3 from acute otitis media, 2 from cervical adenitis, and 2 from albuminuria.

Serious complications, e.g. acute mastoiditis, never occurred.

Owing to the benign type of the disease there has been no real opportunity of proving the efficacy of the specific antitoxin in the prevention of complications. Cases which are clinically mild at the

outset tend to remain mild throughout the illness, and the convalescence is uneventful. Partly because of this, and partly for economic reasons, we have dispensed with the routine administration of antitoxin, and there has been no increase in the number or severity of the complications nor in the length of stay in the hospital. Another point worthy of note is that antitoxin appears to have no effect on complications when once they have arisen.

### Post Partum and Post Abortum Infection.

During the year under consideration, the routine methods of treatment and investigation of cases of post partum and post abortum infection introduced in 1930 have been continued, and the report is submitted in a somewhat similar fashion so that continuity may be preserved and the two years contrasted.

During the year 51 patients admitted with a provisional diagnosis of post partum or post abortum infection were discharged from the hospital and 7 died. The diagnosis on admission was not confirmed in 3 cases, and of these, one died from lobar pneumonia. The other 2 cases were of scarlet fever and lobar pneumonia. Of the 55 cases in which the diagnosis was confirmed 6 died, a case mortality of 10·9%.

### Source of the Cases.

The cases may be classified according to the place of confinement or abortion as follows :—

In the patient's home in Dundee	....	....	28 cases
In Institutions in Dundee	....	....	11 „
In the patient's home outside Dundee	....	....	13 „
In Institutions outside Dundee	....	....	3 „
			—
			55 cases
			==

### Post Partum Infection.

There were 50 cases of post partum infection with 6 deaths, a case mortality of 12%.

#### *Age of Mother—*

15+	20+	25+	30+	35+	40+
2	16	11	9	10	2

as usual more than 50% of the cases occurred within the age group 20-30 years.



**Number of Previous Confinements.**

First Confinement	....	....	18 or 36%
2nd, 3rd, or 4th Confinement	....	....	19 or 38%
5th Confinement or over	....	....	13 or 26%
			—
			50
			==

**State of the Mother.**

Only 5 cases occurred amongst unmarried mothers.

**Stay in Hospital.**

Of those who recovered, the average stay in hospital was 36·5 days. The longest being 144 days and the shortest 4 days.

Of those who died, the average stay was 9 days, the longest being 26 days and the shortest 3 days.

**Nature of Confinement.**

In 17 cases the confinement was abnormal or the delivery instrumental. The particulars are as follows :—

1. Instrumental Delivery	....	....	12 cases
2. Manual removal of Placenta	....	....	1 case
3. Retained products of Conception	....	....	2 cases
4. Post Partum Haemorrhage	....	....	2 „

**Damage to Soft Parts.**

In 23 cases there was damage of varying degree to the soft parts. Cervical lacerations occurred in 11 cases, perineal tears in 7, while combined perineal and cervical lacerations occurred in 4.

**Clinical Types of Infection.**

The three groups are defined with the usual reservations, and are detailed below :—

*Group 1.*—Cases in which the infective process was localised to the uterus and/or external genitalia. There were 37 of these cases, with 2 deaths—1 complicated with pneumonia.

The bacteriological results of uterine cultures are summarised as follows :—

Haemolytic Streptococci	....	....	....	....	5
Non-haemolytic Streptococci	....	....	....	....	2
Non-haemolytic Streptococci + other organisms (Colon, Staphs, Bacilli, etc.)	....	....	....	....	7
Staphylococci, Colon Bacilli	....	....	....	....	20
Unidentified Streptococci	....	....	....	....	3

*Group 2.*—Cases where the infection has spread through or beyond the uterus to the appendages, cellular tissues, or peritoncum but which have remained non-septicaemic.

There were 4 of these cases—3 with pelvic cellulitis and 1 with generalised peritonitis. The last-mentioned case died.

The bacteriological results of the uterine cultures were as follows :—

Non-haemolytic Streptococci	....	....	....	....	2
Non-haemolytic Streptococci (and other organism)	....	....	....	....	2

*Group 3.*—Cases (septicæmic) where the infecting organisms were recovered from the blood stream—9 in all, with 3 deaths.

The bacteriological results in each case are given below :—

Case.	Blood Culture.	Uterine Culture.	Result.
1.	Haemolytic Streptococcus.	Haemolytic Streptococcus.	Died.
2.	Do.	Do.	Do.
3.	Do.	Do.	Do.
4.	Do.	Do.	Recovered.
5.	Do.	Do.	Do.
6.	Do.	Do.	Do.
7.	Do.	Haemolytic Streptococcus + Staphylococcus.	Do.
8.	Do.	Do.	Do.
9.	Pneumococcus.	Staphylococcus + Colon Bacillus.	Do.

In the last-mentioned case the blood culture positive to the pneumococcus is accounted for by the fact that while in hospital the patient developed lobar pneumonia with empyema.

#### Summary of the Bacteriological Findings in the Three Groups.

Haemolytic Streptococci	....	....	....	....	13
Non-haemolytic Streptococci	....	....	....	....	4
Non-haemolytic Streptococci + other organisms	....	....	....	....	9
Staphylococci, Colon Bacilli, etc.	....	....	....	....	21
Unidentified Streptococci	....	....	....	....	3

### Summary of the Fatal Cases.

Case.	Para.	Days Ill before Admission.	Bacteriological Findings.		Confinement.
			Uterine Culture.	Blood Culture.	
1.	5	4	Non-haemolytic Streptococcus.	Sterile.	Central placenta praevia, ante-partum haemor- rhage, and instrumental delivery.
2.	1	5	Do.	Do.	Instrumental delivery, with lacerations of perineum and cervix.
3.	4	3	Haemolytic Streptococcus.	Haemolytic Streptococcus.	Artificial rupture of mem- branes and perineal tear.
4.	3	5	Do.	Do.	Perineal tear.
5.	3	7	Do.	Do.	Normal.
6.	11	3	Colon Bacilli.	Sterile.	Normal.

Thus of the 6 fatal cases, 5 were infected with the streptococcus, and in 3 of these the streptococcus was haemolytic. Case No. 5 is difficult to explain. The patient had a persistent vaginal discharge during the last four months of pregnancy, and she may have been one of these rare cases of autogenous infection or the discharge may have lowered the local resistance of the tissues and left the door open for the invading haemolytic streptococci. Case No. 6 can be discounted as it was complicated with pneumonia. Thus there remain 4 cases, in all of which the confinement was abnormal in some respects, e.g. instrumental delivery, manual interference, damage to soft parts, etc.

In the treatment of puerperal infection it is an accepted fact that the serum must be given early if it is to have the desired effect, and considered in this light, it would be interesting to know if prophylactic serum given to all abnormal, complicated, or "interfered with" cases would reduce the morbidity rate, and with it, the mortality rate.

### Treatment and Bacteriological Investigations.

A brief account of the treatment, etc., may prove of interest.

Taking the year under consideration, the result of the routine treatment now carried out in the hospital show a distinct and striking improvement on last year's. A case mortality of 10·9 per cent. as compared with 18 per cent.

The bacteriological investigations carried out consist of:—

1. Blood culture.
2. Uterine culture in broth.
3. Uterine culture on a rabbit blood agar plate.

The patient is nursed in the Fowler position, and encouraged to move about in bed to assist in free drainage, and to obviate stasis of the discharge in the uterine cavity and uterine tissues. Only one

method of artificial drainage of the uterus is employed, namely, intra-uterine glycerine injections. The glycerine acts through its exosmotic effect on the uterine secretions, and also as a slight stimulant to the uterine muscles. About 2 ozs. of glycerine are injected into the uterus through a sterilised rubber catheter. The injections are continued daily until the discharge has cleared up, the tenderness has disappeared, and the uterus has returned to its properly involuted size. The result of the injections are best seen in cases where the infection has remained localised to the uterus. The discharge shows a daily diminution in amount with return to normal character, and the patient's general condition improves as shown by a fall in temperature and pulse rate, and a return of appetite and general well-being. If on admission the discharge is scanty, it rapidly increases in amount as a result of the initial glycerine injection, and gradually assumes the characters described above.

### Treatment by Serum.

Each patient is given 60 c.cs. of Scarlet Antitoxin serum intravenously. In order to test for serum sensitiveness, .5 c.c. of the serum is injected intramuscularly at least 4 hours before the full dose is given. If there is no reaction, 20 c.cs. of serum diluted with 10 c.cs. of warm sterile saline are given intravenously and the dose repeated on 3 successive days.

### Accessory Treatment.

*Counter-Irritation.*—Treatment in conditions involving the appendages, cellular tissues, and pelvic peritoneum is strictly conservative unless there is definite evidence of abscess formation.

The lower abdomen is covered with anti-phlogistine spread on white lint and exposed to a radiant heat lamp for 20 minutes at a distance of 6 inches two or three times a day, depending on the severity of the inflammatory process. Joint affections, etc., are treated similarly or with Spirit and Boracic fomentations in place of the anti-phlogistine, except when pus forms when incision and drainage is performed.

Abdominal distension is relieved by the use of escrine, followed in about one hour's time by a flatus enema of magnesium sulphate and glycerine. Severe anaemia, which is very common especially in the more severe type of infection, requires vigorous treatment. All patients receive a preparation containing iron or arsenic and strychnine, in addition to vitamins A and D in the form of Radiostoleum—2 capsules, each containing 6 minims, being given three times a day.



### Cases of Post Abortum Infection.

There were five cases of septic abortion, and all recovered. Bacteriological investigations were carried out in three of the cases, and are recorded below :—

Case.	Blood Culture.	Uterine Culture.
1	Haemolytic Streptococcus.	Haemolytic Streptococcus.
2	Sterile.	Colon Bacillus.
3	Unidentified Streptococcus.	Colon Bacillus.

### Cerebro Spinal Meningitis.

During the year 11 cases of cerebro spinal meningitis were treated, and of these 4 died. A case mortality of 36·36%

The majority of cases occurred in children under 5 years of age. All the patients had been ill for a few days before admission, and as meningitic symptoms were well established, all the serum was given intrathecally. A routine system of serum treatment is now in use, and has proved successful in the 5 cases treated since its introduction. Numbered amongst these successes is the recovery of an infant of 6 months.

### Serum Treatment.

Lumbar puncture is made in the middle line of the spine in the space between the fourth and fifth lumbar vertebrae with the patient in the lateral decubitis. No routine general anaesthetic is given. The fluid is allowed to escape until the pressure in the cerebro spinal cavity is judged to be normal or nearly normal. The fluid is then measured, and exactly half that volume of serum (poly-valent) is injected slowly into the intrathecal space, and the process repeated daily. The dose injected varies therefore, the maximum given in a child in one dose being 30 c.cs. The injections are continued until three days after the temperature has fallen to normal and there is general improvement in all clinical symptoms.

A further and most important guide is the state of the cerebro spinal fluid. Cell counts and microscopical examination of the fluid for meningococci are performed daily, and any marked increase in the number of cells, even in the absence of an elevated temperature or subjective phenomena, is regarded as a definite indication for the continuance of the serum injections. Any relapse occurring during the course of the illness is always treated like a first attack.



After the injection the patient is placed with the head lowered, the buttocks raised, and kept thus for 2 hours to allow of diffusion of the serum.

### **Tuberculosis.**

During the year 124 patients were discharged, of these 53 died—a case mortality of 42·74%

The much vexed question of lack of accommodation for the treatment of respiratory diseases of children is near its solution. The transfer of Ward 8 patients to Ashludie is now a thing of the near future, and the vacated pavilion with minor alterations should prove ideal for the treatment of these cases. The additional number of cots will also allow of the treatment of a larger number of patients and variety of diseases, and at the same time permit of a longer convalescence in hospital. At present the accommodation is so limited that we are forced to discharge patients when we are well aware of the fact that an extra week or so would have untold beneficial effects on their after health.

During the year an effort at open-air treatment was made in cases of primary broncho pneumonia and in secondary broncho pneumonia following measles and whooping cough, with results so gratifying that it is hoped when alterations are carried out in Ward 8 additional balcony accommodation will be provided. The average duration of illness was less, cyanosis and dyspnoea less, the temperature fell more rapidly, and the patients slept better.

Lastly, an attempt should be made to provide a number of cubicle cots to ensure efficient isolation of patients and avoidance of cross infection.

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## MARYFIELD HOSPITAL.

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REPORT BY DR. J. B. MACDONALD, Medical Officer.

This report covers the calendar year 1931, whereas last year's report dealt with the financial year ending in May.

On 1st January 1931 there were in Hospital 140 men, 149 women, 16 boys, and 17 girls ; and there were admitted during the year 672 men, 597 women, 143 boys, and 148 girls. The total number of patients treated during the year was 1,882.

The Hospital accommodation consists of 328 beds and the average daily number of patients was 320. The smallest number on any one day was 287 and the largest 349.

An analysis of the discharges shows the following diseases treated and the number of cases of each :—

Diseases of Bones and Joints ....	....	....	7
Circulatory Diseases ....	....	....	175
Digestive Diseases ....	....	....	71
Diseases of Ductless Glands ....	....	....	1
Diseases of Early Infancy ....	....	....	18
General Diseases ....	....	....	36
Genito-Urinary Diseases ....	....	....	49
Infectious Diseases ....	....	....	50
Specific Debility ....	....	....	24
Malignant Disease ....	....	....	51
Nervous Diseases ....	....	....	135
Pregnancy and Parturition ....	....	....	59
Respiratory Diseases ....	....	....	239
Skin Diseases ....	....	....	211
Tuberculosis ....	....	....	36
Injuries ....	....	....	33

During the year 32 infants were born in Hospital and 100 healthy children admitted, most of the latter being subsequently transferred to Duncarse Children's Home.

Ninety-two patients were diagnosed as suffering from Old Age.

During the year 299 patients died, and 144 of these were between the ages of 70 and 90. Three patients died aged 91, 92, and 94.

There were 12 deaths of children under the age of 10—3 from Pneumonia and 9 from Specific or Congenital Debility.

One case of Ophthalmia Neonatorum, 3 cases of Erysipelas, 7 of Chicken-pox, and 1 of Acute Primary Pneumonia occurred and were notified to the Medical Officer of Health.

There were 65 operations performed in the Theatre, including :—

- 7 of Appendicectomy,
- 2 of Gastro-enterostomy,
- 2 of Tonsillectomy,
- 5 for Hernia,
- 5 on Bladder,
- 5 Gynaecological,
- 2 Paparotomies,
- 4 Amputations,
- 1 Colostomy.

Over 200 Gynaecological and Surgical examinations were made; and Mr F. R. Brown, Visiting Surgeon, and Dr. R. C. Buist, Visiting Gynaecologist, also kindly gave demonstrations and lectures to the nurses undergoing training.

The teeth of patients were systematically attended to by Mr J. M. Laburn, Dental Surgeon.

Valuable clinical work was done by the Resident Medical Officers and I beg to thank them and the Matron and the Governor of East House for their help and co-operation.

Patients requiring to be X-Rayed were sent to the Public Health Institute or to Dundee Royal Infirmary and investigations were made for us from time to time by the Bacteriological and Pathological Departments of Dundee Medical School.

We are much in need of side rooms and annexes to the various wards for the use of doctors and for clinical research. If the upstairs corridor were extended so as to stretch from end to end of the Hospital space could be got for side rooms.

Work in the Observation Wards during the year was, as usual, heavy. There were 275 cases of mental trouble admitted, and of these, 76 were transferred to Westgreen Mental Hospital for further treatment and 7 died. The others were discharged either to their homes or to the ordinary wards of the Hospital. In spite of a continuous effort to transfer to Westgreen all certifiable cases and retain for treatment only such patients as appear to be making a speedy recovery, the number of mental invalids left on our hands in Maryfield always tends to be large.

The training school had a successful year. The new lecture hut is admirably adapted for teaching purposes and is well equipped with models and diagrams. The Sister Tutor finds time to give each probationer individual attention, and our senior and junior nurses continued to do well in the examinations of the General Nursing Council. In 1931, out of 14 Seniors who sat the Final Examination 11 made complete passes and finished their training and 3 made partial passes.

Our total Staff comprises 39 probationers, 2 staff nurses, 12 sisters, 1 night superintendent, 1 sister tutor, and 1 assistant matron.

During the year 14 cubicles were added to the accommodation and did something towards easing the problem of housing the staff; and the additional 7 bedrooms which will be available when the present alterations and additions to the kitchen are completed will make it possible to carry on with some degree of comfort in the meantime.

The Hospital is facing a future of greater efficiency and greater usefulness. Those of us whose part it is to help to mould that future are proud to be associated with Convener S. G. Fraser and Dr. Burgess, the Medical Officer of Health.

J. B. MACDONALD, M.A., M.B., L.R.C.P.,  
*Medical Officer.*

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# WESTGREEN MENTAL HOSPITAL.

REPORT BY DR. W. TUACH MACKENZIE,  
Medical Superintendent.

On 15th May 1931 there were 548 patients on the Statutory Registers of the Hospital ; 264 men and 284 women ; 87 patients were admitted, 47 men and 40 women ; 31 were discharged, 15 men and 16 women ; and 28 died, 13 men and 15 women.

The number of Patients on Registers on 15th May 1932 was 575, 282 men and 293 women ; this is an increase of 27, 18 men and 9 women, during the year.

The movement of the population is shown as follows :—

						Male.	Female.	Total.
On Register, 15th May 1931	....	....				264	284	548
Admitted	....	....	....	....	....	47	40	87
Total under care and treatment						311	324	635
						M.	F.	T.
Discharged :—								
Recovered	....	....	12	10	22			
Relieved	....	....	4	5	9			
Not Improved	....	....	—	1	1			
Died	....	....	13	15	28			
Total Discharged and Died						29	31	60
On Registers, 15th May 1932	....	....				282	293	575

The Settlements of the patients at end of year were :—

					Males.	Females.	Total.
City of Dundee	....	....	....	....	263	279	542
County of Angus	....	....	....	....	2	7	9
Other Distriets (chiefly Glasgow)				....	17	7	24
					282	293	575



There were 26 Male Private Patients, of whom 22 Service Patients and 2 Special Exchequer Grant Patients belong to Dundee, 1 Service Patient to the County of Angus, and 1 Service Patient to another District.

The average number of Patients during the year was 566—276 men and 290 women.

The position as regards our Hospital accommodation on 15th May is here shown :—

			Males.	Females.	Total.
Total number of Beds in Hospital	....		312	302	614
		M. F. T.			
Number of Beds occupied					
by Patients	....	....	282	293	575
Number of Beds occupied					
by Staff	....	....	28	3	31
Total number of Beds occupied	....	....	310	296	606
Number of Vacant Beds (Patients)	....		2	6	8

The accommodation of the Hospital is measured in Square Feet and is calculated as follows :—

30 Sq. Ft. for Day Accommodation per Patient.	
60 „ Night or Dormitory Accommodation per Patient.	
90 „ Hospital Accommodation per Patient.	

It will be apparent from these figures that our accommodation is fully taxed and that any marked increase of patients would lead to overcrowding ; a condition of things serious in any Hospital, but particularly so in a Mental Hospital, as it not only prevents the proper classification of the patients and increases the difficulty of their supervision and management, but it also reacts injuriously on the patients themselves. It is earnestly hoped the Committee will give this their very serious consideration.

The bodily health of the patients admitted was Poor in 30 of the cases, Fair in 49, and in only 8 cases could the health of the patients be described as Good.

The mental condition on admission was as follows :—Confusional Insanity in 27 cases, Mental Depression in 25 cases, in 10 of whom active suicidal tendencies were manifested ; Delusional Insanity (chiefly of persecution and suspicion) in 15 cases, General Paralysis of the Insane, 7 ; Weak-mindedness with mental symptoms, 7 ; Hallucinatory Insanity, 3 ; and Hypochondriasis, Epilepsy, and Dementia 1 case each.

Twenty-four of the patients were between 15 and 30 years of age ; 30 between 30 and 45 ; 24 between 45 and 60 ; and 9 between 60 and 70 years.

### Discharges.

Twenty-two patients were discharged as Recovered, 9 as Relieved, and 1 patient was discharged Not Improved.

Of the 9 patients discharged as Relieved, 8 were sent to the Lunatic Wards, East House, Dundee, and 1 to the Mental Hospital of his settlement. The patient discharged as Not Improved was an old lady who was transferred to a Private Mental Hospital.

Calculated on the number of Admissions the recovery rate was 25·3%.

Eighteen of those discharged Recovered were in Hospital from 3 to 12 months, and were cases admitted soon after their disorder showed itself. This is a valuable object lesson, and is proof that mental disorder is in the great majority of cases an eminently curable condition if taken in time, and is a strong argument for the early treatment of mental cases. This is now being generally recognised and put in practice all over the country. In our own country, the Scottish Mental Welfare Association—a body which started originally as a Local Care Committee for Mental Defectives—has done invaluable work in creating an interest in mental hygiene throughout the country. The enthusiastic development of these agencies makes one realise how far psychiatric work has departed from a purely institutional tradition, and is stretching forth so as to take a more prominent part in every type of social and medical work. The cut and dried formulations which held sway for so many years are rapidly passing into disuse, and, as a nation, we are appreciating that mental disease and defect is something which we must not merely accept and bear, but that constructive efforts should be made to prevent and cure such types of illness in their incipency.

Let us recognise, in the first place, that this matter of mental hygiene is a public health question which should be placed on the same footing as physical hygiene. It is in line with the prevention of tuberculosis, the control of infectious diseases, the betterment of living conditions. For that reason the centralisation of control in Public Health Officials should be welcomed.

By employing the same standards, and by placing mental hygiene on the same basis as physical hygiene—apart from the technical details of control—people will begin to consider mental disease and defect in terms of illness, rather than in terms of wickedness, crime, or stigma, which is still too often the case to-day.

One may ask what results we are getting to-day as compared with 25 or 50 years ago. It has to be admitted that our more modern and better equipped mental hospitals, supported as they are by a better trained and more enlightened personnel, have not effected any striking improvement. That, however, is not the way to look at it. Research work does not necessarily bring quick results, but means painstaking effort over an indefinite period of time before modifications even can be effected. The real answer seems clear enough. A general hospital dealing with a group of seriously involved heart cases does not obtain any better results to-day than it did 25 or 50 years ago, and we do not expect it to, because we recognise that it is dealing with end results, with conditions which at their best can only be modified. We, too, in Mental Hospitals have been up to quite recently dealing with end results, with cases which have been going on for years before adequate treatment has been started. We must get in at the beginning, and, if that is possible, and there is no valid reason why it should not be, it is not too much to hope that less necessity will arise for the establishment of large institutions to be used as permanent homes for hopelessly affected mental invalids. Medically, socially, economically, it is better to centralise on the recoverable than to care through a lifetime for those whose illness has been allowed to develop in most of the cases past all chance of betterment.

That is the reason why we must consider mental illness as a social and public health problem—something to be combated in the community, and in the clear light of day rather than behind the high walls of an institution. It is not a medical question solely, but a problem to meet which we must pool our resources, and have the co-operation of all, medical and lay, who really have at heart the welfare of humanity.

It is reckoned that one person out of twenty-two becomes a patient in a mental hospital during the lifetime of a generation.

In Scotland we have one certified patient to approximately 264 of the population.

In Scotland for maintenance alone, the budget amounts to £800,000 per annum. But to get a clearer idea of the financial burden we have to remember that mental disorder involves those who, in other circumstances, would be wage-earning citizens, and to obtain a true assessment, the loss of earnings due to disability would have to be considered.

There is, however, a less gloomy side not so fully appreciated as it should be. The fact that so many patients are discharged as recovered and the return of so many patients to a social and industrial life is the best answer to those who believe that it would be impossible for patients ever to recover or readjust under mental hospital conditions. So many have the erroneous idea that association with patients in a mental hospital must inevitably lead to greater distress. That idea cannot be too strenuously refuted. Removal to a mental hospital results in lessening of the strain incidental to everyday life; the person sets his own pace, no high social demand is made, and this simplification, combined with a feeling of being understood, leads by itself to betterment. In addition to the number of discharges, an analysis of the figures show that the vast majority of our recoveries take place within the first twelve months following admission. Where mental hospital residence has extended over a period of three years, a satisfactory recovery rate can rarely be hoped for.

I have endeavoured in these remarks to show as simply as possible the modern trend of treatment of the mentally afflicted and what should be our aim if we are to successfully cope with this incubus on the social and economic life of the community.

### Deaths.

Twenty-eight deaths occurred during the year, a death-rate calculated on the average resident population of 4.9%.

The causes of death were verified by post-mortem examination in 16 cases, that is, in every case in which the relatives granted permission.

All the deaths were due to natural causes, the assigned causes being Valvular Heart Disease in 7 cases, General Paralysis of the Insane in 6 cases, Pulmonary Tuberculosis in 4 cases, Epilepsy and Acute Lobar Pneumonia in 3 cases each, Cerebral Apoplexy in 2 cases, and in one each to the following:—Organic Brain Disease, Rectal Carcinoma, and Gastric Carcinoma.



The ages at death ranged from 30 to 75 years, 1 patient was resident for 20, 1 for 21, and 4 for 26 years.

### General.

The administration of the Hospital has been carried out on the same lines as formerly. A good deal of sporadic illness occurred amongst the Staff, 1 Nurse contracted Enteric Fever, but is making satisfactory progress. Another Nurse developed Tubercular Meningitis from which she died in the Royal Infirmary, and there were a number of cases of Follicular Tonsillitis and Influenza both amongst the patients and staff.

The training of the Nursing Staff has been continued as in former years. Lectures are given by the Assistant Medical Officers and Clinical Clerks and practical demonstrations by the Matron and her Assistants. As a result of their training, 8 passed the Preliminary Examination of the Royal Medico-Psychological Association and 10 passed the Final Examination and obtained the certificate for proficiency in Mental Nursing. In this connection I would refer to my observations in last year's Report regarding the inadequacy and unsuitability of our facilities for lecturing.

The Farms, Garden, and Grounds continue to provide healthy employment to many of the Male Patients, and a considerable amount of useful work is being done. It is satisfactory to record that our Farms show a credit balance of nearly £900 on the year's working, and great credit is due to our Manager for his work.

The Tradesmen have been engaged on the usual repairs and upkeep of the various buildings, and the patients assisting them have benefited by the work.

Work in the two Occupational Pavilions has proved of the utmost value in a curative sense. Three Female patients who were formerly unemployable, by tact and encouragement, became so interested in the work that they became quite proficient workers and have been discharged from the Hospital. At a Sale of the Work, which was held recently, the sum of £44 was obtained, which for a beginning is very satisfactory.

On behalf of the patients I desire to again express my sincere thanks to the British Red Cross Society for the gifts of periodicals and books received throughout the year.



The Visiting Dentist and Chaplain to the Hospital report as follows :—

### Dentist's Report.

“ I have much pleasure in submitting to you my report of Dental Treatment carried out by me at Westgreen Mental Hospital for year to 31st December 1931.

I made 49 visits to the Institution during the year and carried out the following treatment :—

#### *Extractions :—*

With Local Anaesthetic	....	....	....	....	238 Teeth.
With General Anaesthetic	....	....	....	....	21 Teeth.
<i>Fillings</i>	....	....	....	....	34 Teeth.
<i>Scaling and Cleanings</i>	....	....	....	....	325 Cases.
<i>SilverNitrate Treatment</i>	....	....	....	....	128 Teeth
(To arrest Dental Caries).					Treated.

One patient had a Denture repaired at his relations' request and expense and by permission of the Medical Superintendent.

The health of the mouths are fair.

Every patient's mouth was examined twice during the year.

(Signed) FRANK BERRY WHYTE,  
L.D.S., St. And."

### Chaplain's Report.

“ I have the honour to submit my report for 1931-1932.

The regular Sunday Service has been held in the Church during the year with practically no interruption from the weather. The patients continue to take the same reverent part in the service and to join most heartily in the praise. Choir practices have been held during the week, and Mr Adams and Mr Chalmers have, as in the past, rendered me most valuable help. The renovation of the Church must be referred to with gratitude, for it has enabled us to worship in brighter and more helpful surroundings. The work has been most thoughtfully and ably carried through.

The Admission and Sick Wards have been visited weekly and short services held there for those who are unable to attend the Sunday Service.

As always, my work has been made more easy and pleasant by the uniform courtesy and kindness I have experienced from every member of your staff.

(Signed) J. MACLEAN, *Chaplain.*"

It is to be hoped that it may be possible at an early date for consideration being given to the inadequacy of our Kitchen and Laundry. With our patients increasing in number, the work in these departments is being carried out under difficulties.

The statutory visits to the Hospital by H.M. Commissioners of the General Board of Control were made by Dr. Hamilton Marr on 12th November 1931 and by Dr. Sturroek on 14th April 1932. Both reports were exceedingly satisfactory.

In conclusion, I should like to take this opportunity of recording my appreciation of the unvarying courtesy shown to myself by all the members with whom I have come in contact, and in particular I desire to thank Convener Fraser for his co-operation and help in my work, a work which, of necessity, is sometimes difficult and always trying and anxious.

WM. TUACH MACKENZIE,  
*Medical Superintendent.*

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## TUBERCULOSIS.

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REPORT BY DR. J. H. HUNTER,  
Chief Tuberculosis Medical Officer.

While there has been no material alteration in the working of the Tuberculosis Scheme during 1931, the completion of this year marks a full year's working of the new arrangement brought about by the re-organisation of the Medical and Nursing Services of the Public Health Department. The immediate results of this innovation have been entirely satisfactory. The change over, which actually took place at the beginning of the year, after a few months preliminary training, was carried out very smoothly and without interruption, the staffs quickly and quietly settling down to the new order of things.

It is a matter for congratulation that such a far-reaching change should have been accomplished with little or no disturbance of the ordinary routine. It augurs well for the future of the scheme and for the greater efficiency of the Public Health Service in this City.

As a direct result of this new arrangement a special Tuberculosis Clinic has been established, to which school children found, or suspected, to be suffering from tuberculosis by the School Medical Officers on their routine school examination are referred for diagnosis, observation, and treatment. This clinic has proved successful and beneficial from my point of view, and I hope that it has proved so to the School Medical Officers. The clinic meets weekly at the School Medical Clinic in Castle Street during school sessions.

Patients who have had artificial pneumothorax induced while resident in the Sanatorium at Ashludie frequently become fit to return to their homes before the treatment has been completed. It is absolutely necessary for a successful result that this treatment be carried out to its completion, it may be for three, four, or five years according to individual needs. To achieve this end, an artificial pneumothorax clinic was opened at the Public Health Institute, at which such patients attend after their discharge from Ashludie. The Resident Medical Officer of Ashludie is in charge of this clinic, which at present meets every second week, when the required "refills" are carried out.

I have appreciated very much the helpful services rendered by the Medical Officers and the Staffs of the Public Health Institute, Ashludie

Sanatorium, King's Cross Hospital, and the Public Health Department which have greatly assisted in carrying out the object of our scheme. I here tender my sincere thanks for this very valuable assistance during the past year.

Below is a detailed report of the work done :—

In the year 1931, 332 cases of tuberculosis were notified. 245 cases of pulmonary tuberculosis and 87 cases of non-pulmonary tuberculosis. Of these :—

142 cases were discovered at the Tuberculosis Section.

101 cases were notified by private practitioners.

4 cases were notified from Maryfield Hospital.

53 notifications came from Royal Infirmary.

3 notifications came from Convalescent Home, Barnhill.

5 notifications came from Medical Officers outside the City.

24 cases came under the notice of the Department through the Registrar after death had taken place.

### Pulmonary Tuberculosis.

During the year 245 cases of pulmonary tuberculosis were notified. The age and sex of these were as follows :—

Age.				Males.	Females.	Total.
Under 1 year	....	....	....	1	—	1
1- 5 years	....	....	....	3	1	4
5-15	„	....	....	28	37	65
15-25	„	....	....	31	31	62
25-45	„	....	....	44	41	85
45-65	„	....	....	15	10	25
65 years and upwards	....	....	....	2	1	3
Total				124	121	245

The following are the particulars as regards housing :—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1	29	109	3.75
2	105	524	2.49
3	49	315	2.14
4 and upwards	14	71	1.26

In 48 cases home conditions were satisfactory.

### Non-Pulmonary Tuberculosis.

During the year 87 cases of non-pulmonary tuberculosis were notified.

The age and sex of these were as follows :—

Age.					Males.	Females.	Total.
Under 1 year ....	....	....	....	....	—	3	3
1- 5 years ....	....	....	....	....	6	12	18
5-15 „ ....	....	....	....	....	11	17	28
15-25 „ ....	....	....	....	....	8	11	19
25-45 „ ....	....	....	....	....	10	6	16
45-65 „ ....	....	....	....	....	—	2	2
65 years and upwards	....	....	....	....	—	1	1
					35	52	87

The sites of the disease were as follows :—

	Under 1 year.	1-5 years.	5-15 years.	15-25 years.	25-45 years.	45-65 years.	65 years & upwards.	T'l.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Meningitis ....	0 2	1 4	1 2	1 1	2 1	0 0	0 0	5 10
Abdomen ....	0 0	1 3	5 6	2 2	1 1	0 0	0 0	9 12
Glands ....	0 0	0 3	0 3	1 6	0 0	0 0	0 0	1 12
Joints ....	0 0	0 0	5 0	1 2	2 1	0 0	0 0	8 3
Spine ....	0 0	4 0	0 3	0 0	1 1	0 1	0 0	5 5
Other Forms	0 1	0 2	0 3	3 0	4 2	0 1	0 1	7 10
Totals ....	0 3	6 12	11 17	8 11	10 6	0 2	0 1	35 52

The following are the particulars as regards the housing of the non-pulmonary cases :—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1 ....	8	29	3.62
2 ....	42	219	2.60
3 ....	14	79	1.88
4 and upwards	5	22	1.10

In 18 cases home conditions were satisfactory.

72 houses were disinfected on removal of patients to hospital, as compared with 118 in 1930.

The notifications of tuberculosis show a decrease of 40—22 pulmonary and 18 non-pulmonary. The greatest pulmonary decrease is in age groups 5-15 in males and 45-65 years in females. In the non-pulmonary form the decrease is in age groups up to 15 years, greater in males and of the abdominal type.

### Tuberculosis Clinic.

During the year 441 new cases were enrolled, as compared with 499 in the year 1930. Of these, 104 were found to be suffering from distinct phthisis (55 males and 49 females). 52 were found not to have the disease. In 272 cases the signs were somewhat indefinite, but these cases were regarded as the “pre-tuberculosis stage”; and 13 were found to be suffering from other forms of tuberculosis.



There were 288 contacts examined ; 3 were found to be suffering from pulmonary tuberculosis, 1 was found to be suffering from other forms of tuberculosis, 124 were suspicious and are being kept under observation, and the remaining 160 were found to be negative.

Of the 104 cases of definite phthisis, 27 were previously notified and 77 were notified from the clinic for the first time.

The age and sex of these were as follows :—

Age.				Males.	Females.	Total.
Under 1 year	....	....	....	—	—	—
1- 5 years	....	....	....	1	3	4
5-15	„	....	....	14	13	27
15-25	„	....	....	16	11	27
25-45	„	....	....	20	17	37
45-65	„	....	....	4	5	9
65 years and upwards		....	....	—	—	—
				—	—	—
Total	....	....	....	55	49	104

The attendances at the tuberculosis clinic were as follows :—

			Insured.	Non-Insured.	Total.
January	....	....	376	333	709
February	....	....	437	365	802
March	....	....	365	296	661
April	....	....	466	381	847
May	....	....	379	276	655
June	....	....	373	279	652
July	....	....	351	198	549
August	....	....	395	254	649
September	....	....	394	290	684
October	....	....	408	310	718
November	....	....	407	366	773
December	....	....	393	276	669
			4,744	3,624	8,368

The attendances at the clinic show a decided increase, this being greatest among the non-insured patient.

The examination of contacts has shown a decided decrease as compared with 1930, though still a marked increase on previous years. This is an important part of the scheme, and every endeavour should be made for contacts of patients to attend for examination, especially in the younger children and where there is apparent ill-health. It is difficult to make people realise the importance of this measure.

### Artificial Sunlight.

During 1931, 277 patients attended the artificial sunlight clinic. Of these, 136 were males and 141 were females.

	Males.	Females.	Total.
Number of Attendances ....	4,668	5,235	9,903
Number of Sessions ....	—	—	549

### Laboratory Work.

During the year 356 specimens of sputum were examined, with the following results :—

	Positive.	Negative.
47 for general practitioners ....	13	34
309 for clinic patients ....	45	264

### X-Ray Department.

During 1931 239 radiograms and 173 screen examinations were carried out. Of the 239 radiograms :—

<i>Chest.</i>	<i>Other Parts.</i>
220	19

### Artificial Pneumothorax.

During the year there were 217 attendances at the Artificial Pneumothorax clinic. Of these, 54 were males and 163 were females.

### Ashludie Sanatorium.

During the year there were 88 cases admitted to this Institution. Of these, 41 were males and 47 were females. 84 patients were discharged (42 males and 42 females). Average stay in Institution—242 days.

The following show the result of the treatment of those cases :—

	Very much Improved.	Improved.	Slight Improvement.	No Change.
Males ....	14	14	—	14
Females ....	15	12	2	13

2 males and 4 females died before discharge. 73 patients are still alive and 10 have died since discharge (plus one Arbroath case).

Occupation of the new pavilion was not obtained as expected during the year, and it is estimated that the buildings will not be ready till March 1932.

The work has been carried out in Ashludie most satisfactorily and successfully and good results have been achieved.

### King's Cross Hospital.

During the year there were 118 cases admitted to the Institution. Of these, 55 were males and 63 were females. 53 patients died (27

males and 26 females), and 71 were discharged, many of them greatly improved.

The age and sex of the fatal cases were :—

Age.				Males.	Females.
Under 1 year	....	....	....	—	—
1– 5 years	....	....	....	3	—
5–15 „	....	....	....	—	—
15–25 „	....	....	....	7	7
25–45 „	....	....	....	13	16
45–65 „	....	....	....	4	3
Over 65 years	....	....	....	—	—
				—	—
				27	26

King's Cross Hospital has, as usual, proved a very valuable Institution in the treatment and segregation of cases. With the removal of these wards to the New Pavilion at Ashludie, King's Cross will cease to function as a unit of our tuberculosis scheme. I hope, however, that if it is possible, a few beds may be retained there for the treatment of cases, especially the dying and urgently ill patient. The distance to Ashludie is great and the expense in travelling considerable, that from the humane point of view, the retention of some beds, if not in King's Cross, at least in a more accessible part in the City, is almost a necessity.

#### Sidlaw Sanatorium.

During the year there were altogether 73 cases from the city under treatment in this Institution. 34 of these were males and 39 were females. There were 79 cases discharged (40 males and 39 females). Average stay in Institution—177 days.

The following table shows the result of the treatment in these cases :—

Improved.	Slight Improvement.	No Improvement.
61	—	18

Sidlaw Sanatorium has given very good results during the past year and many of the city's children have benefitted by their residence there.

I visited this Institution occasionally during the year and I was always impressed with the progress made by the children there.

I take this opportunity of thanking the Medical and Nursing staffs for their valuable help to this part of our work.

J. H. HUNTER,  
*Chief Tuberculosis Medical Officer.*

## VENEREAL DISEASES.

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REPORT BY DR. C. AVERILL,  
Special Medical Officer, Venereal Diseases Scheme.

Under the Venereal Diseases Scheme the treatment of these special conditions as heretofore has been carried out during the year at the Public Health Institute.

A special clinic for nursing mothers and their babies still meets at the Child Welfare Centre, Nelson Street. A review of the work done at the latter clinic will be found under report on Child Welfare Scheme.

Although numbers attending and the amount of treatment administered at the Public Health Institute are less than during the previous year, the diminution cannot be definitely attributed to any particular reason and is probably merely due to the natural rise and fall accompanying most pathological conditions.

I should like to think that the incidence of these conditions is less, but so far there is not sufficient evidence to postulate such a tenet.

During the year 1,168 new patients were examined, 723 males and 445 females, a decrease of 50 males, the females showing an increase of 11 over the previous year. In addition to these, a further number, approximately 828 cases, who had not completed their treatment at the end of the previous year, were carried forward. During the year, therefore, 1,996 cases were under treatment.

The total attendances for the twelve months were as follows:—male, 28,170; female, 13,267. Compared with 1930, these show increase of 253 male and decrease of 2,751 female.

The in-patient days for 1931 were respectively 1,410 males and 196 for females. For the previous year these were respectively 2,528 and 382.

Of patients suffering from gonorrhoea 28 per cent. reported in the early stage of their infection, while in the remaining 72 per cent. the disease was well established ere advice was sought at the clinics. From these percentages it will be seen that considerable room for

improvement still exists. Treatment of this condition is still along much the same lines as during the previous year.

With regard to the new cases of syphilis reporting during 1931 an analysis shows them to be made up as follows :—

With "Dark Ground" positive but Wassermann reaction still negative	....	....	....	....	14%
With "Dark Ground" positive and Wassermann reaction positive	....	....	....	....	28%
Suffering from secondary syphilis	....	....	....	....	35%
In the tertiary phase of syphilis	....	....	....	....	16%
Cases showing involvement of central nervous system (Tabes Dorsalis and General Paresis included)					7%

Attention is once again drawn to the extreme importance of patients reporting at the first appearance of any form of venereal sore. How highly important it is to be given the opportunity of diagnosing syphilis microscopically and before the Wassermann reaction has become positive, scarcely appears to be yet fully appreciated.

With regard to the treatment there is nothing fresh to report. Reliance is still placed chiefly upon an arsenobenzol compound and a metal. The metal chiefly in use is still bismuth.

A course of each is given simultaneously and no patient receives less than two courses. Once again I wish to draw attention to the fact that less is of absolutely no value. Not only is it of no value, but frequently it gives rise to a degree of resistance on the part of the *Treponema* to antispecific treatment which is difficult to gauge.

The number of specimens examined by Professor Tulloch and his staff on behalf of the V.D. Clinics is herewith appended. To the staff of the Bacteriological Department I am deeply indebted for much valuable advice and assistance without which the successful working of the scheme would be well nigh impossible.

Wassermann reaction	....	....	....	....	....	2,272
Special Wassermann	....	....	....	....	....	173
Gonococcus Complement Fixation Test	....	....	....	....	....	804
Dark Ground Examinations	....	....	....	....	....	48
Smears	....	....	....	....	....	1,577
Total						4,874

To the various members of the staff I tender my sincere thanks for assistance throughout the year.



## NEW CASES.

## DUNDEE.—Males.

	Syphilis.	Gonorrhœa.	Mixed. Infections.	Other V D.	No V.D.	Total.
January ....	13	15	4	0	16	48
February ....	13	13	0	2	5	33
March ....	9	16	0	4	6	35
April ....	2	19	0	4	10	35
May ....	20	24	10	3	6	63
June ....	2	21	1	1	10	35
July ....	5	19	0	7	13	44
August ....	4	18	0	4	13	39
September ....	9	26	0	4	19	58
October ....	12	20	2	3	51	88
November ....	9	21	0	6	14	50
December ....	6	20	1	6	24	57
Totals ....	104	232	18	44	187	585

## OTHER AREAS.—Males.

	Syphilis.	Gonorrhœa.	Mixed. Infections.	Other V.D.	No V.D.	Total.
January ....	6	1	2	1	2	12
February ....	0	0	0	0	2	2
March ....	1	6	0	2	2	11
April ....	5	2	0	0	5	12
May ....	4	5	4	1	3	17
June ....	3	2	0	0	1	6
July ....	0	12	1	0	3	16
August ....	1	2	0	0	1	4
September ....	2	4	0	0	7	13
October ....	3	11	0	0	7	21
November ....	1	4	1	1	1	8
December ....	7	7	0	0	2	16
Totals ....	33	56	8	5	36	138
Grand Total	137	288	26	49	223	723

TOTAL—New Cases—Males .... 723

## NEW CASES.

## DUNDEE.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections	Other V.D.	No V.D	Total
January ....	10	5	1	0	3	19
February ....	3	7	2	0	1	13
March ....	6	3	0	0	5	14
April ....	7	7	1	0	7	22
May ....	12	13	7	0	14	46
June ....	14	13	1	0	8	36
July ....	7	1	3	0	10	21
August ....	10	10	2	0	7	29
September ....	9	11	1	0	19	40
October ....	22	11	2	0	53	88
November ....	10	9	4	0	17	40
December ....	10	4	0	0	17	31
Totals ....	120	94	24	0	161	399

## OTHER AREAS.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January ....	0	0	0	0	0	0
February ....	1	1	0	0	1	3
March ....	1	0	0	0	1	2
April ....	2	0	0	0	1	3
May ....	2	1	0	0	1	4
June ....	1	2	0	0	0	3
July ....	1	3	0	0	1	5
August ....	2	0	0	0	2	4
September ....	2	2	0	0	2	6
October ....	3	0	0	0	1	4
November ....	3	2	0	0	4	9
December ....	0	1	0	0	2	3
Totals ....	18	12	0	0	16	46
Grand Total	138	106	24	0	177	445

Females—445=1,168.

## AGE PERIODS.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.
Under 1 year	....	4	0	0	0	8
1-5 years	....	3	0	0	0	9
5-15 years	....	16	0	0	0	20
15-25 years	....	33	99	4	23	91
25 years and up.	....	81	189	22	26	95
Totals	....	137	288	26	49	223
Grand Total		....	....	723		

## ATTENDANCES.

## DUNDEE.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total
January	....	615	1,325	174	17	51	2,182
February	....	545	1,136	174	31	48	1,934
March	....	700	1,355	187	44	88	2,374
April	....	635	1,386	156	59	80	2,316
May	....	601	1,539	101	50	86	2,377
June	....	669	1,495	110	54	84	2,412
July	....	489	1,069	86	36	90	1,770
August	....	368	1,182	116	48	77	1,791
September	....	492	1,488	95	42	86	2,203
October	....	542	1,877	130	61	118	2,728
November	....	481	1,643	85	42	116	2,367
December	....	418	1,959	128	67	120	2,692
Totals	....	6,555	17,454	1,542	551	1,044	27,146

## OTHER AREAS.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	....	70	42	9	3	0	124
February	....	64	20	4	1	0	89
March	....	48	29	3	1	0	81
April	....	59	27	0	0	0	86
May	....	38	50	2	0	2	92
June	....	60	42	0	0	0	102
July	....	44	53	0	0	0	97
August	....	37	54	2	0	1	94
September	....	32	22	0	9	1	64
October	....	37	39	0	4	0	80
November	....	34	20	4	0	1	59
December	....	31	25	0	0	0	56
Totals	....	554	423	24	18	5	1,024
Grand Total		7,109	17,877	1,566	569	1,049	28,170
TOTAL ATTENDANCES—Males				....	28,170		

## AGE PERIODS.—Females.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.
Under 1 year	....	6	0	0	0	7
1-5 years	....	9	0	0	0	18
5-15 years	....	10	2	0	0	52
15-25 years	....	32	43	13	0	31
25 years and up.	....	81	61	11	0	69
Totals	....	138	106	24	0	177
Grand Total		....	....	445		

## ATTENDANCES.

## DUNDEE.—Females.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	....	416	271	130	0	60	877
February	....	388	248	130	0	39	805
March	....	351	323	110	0	44	828
April	....	433	442	86	0	75	1,036
May	....	371	449	76	0	85	981
June	....	375	566	105	0	98	1,144
July	....	315	436	94	0	59	904
August	....	349	515	71	0	50	985
September	....	354	413	88	0	109	964
October	....	410	563	132	0	86	1,191
November	....	387	594	76	0	88	1,145
December	....	437	490	74	0	59	1,060
Totals	....	4,586	5,310	1,172	0	852	11,920

## OTHER AREAS.—Females.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	....	56	44	32	0	1	133
February	....	37	42	24	0	7	110
March	....	53	80	40	0	8	181
April	....	39	71	8	0	8	126
May	....	58	66	5	0	9	138
June	....	60	45	6	0	2	113
July	....	19	56	10	0	7	92
August	....	40	61	7	0	4	112
September	....	36	70	8	0	3	117
October	....	32	40	5	0	5	82
November	....	38	19	7	0	1	65
December	....	31	40	3	0	4	78
Totals	....	499	634	155	0	59	1,347
Grand Total		5,085	5,944	1,327	0	911	13,267

Females—13,267=41,437.

## SPECIAL TREATMENT ADMINISTERED.

Number of Intravenous and Intramuscular Injections given :—

		Neokharsivan				Kharsulphan		
		·15	·3	·45	·6	·15	·3	·45
January	....	14	80	104	111	30	60	47
February	....	13	69	62	126	25	96	38
March	....	9	54	53	113	21	79	36
April	....	10	43	65	90	10	51	45
May	....	8	54	54	85	11	39	21
June	....	11	53	48	82	6	38	20
July	....	10	54	56	63	19	37	31
August	....	12	22	73	54	14	40	34
September	....	14	42	45	63	26	33	30
October	....	16	61	64	27	35	60	35
November	....	23	42	66	42	35	67	34
December	....	23	53	61	34	31	74	57
		163	627	751	890	263	674	408
Totals	....	2,431				1,345		

		Bismuth.		Other Drugs.	
		·2	·3	·4 gm.	
January	....	151	73	213	129
February	....	153	131	173	140
March	....	155	95	163	132
April	....	144	39	125	121
May	....	125	59	139	120
June	....	93	54	132	105
July	....	98	59	116	109
August	....	94	60	95	124
September	....	71	69	107	137
October	....	51	92	99	147
November	....	52	80	77	139
December	....	34	84	79	149
		1,221	895	1,518	1,552
Totals		3,634			1,552

GRAND TOTAL—8,962



## PATHOLOGICAL WORK.

Number of Specimens Examined :—

	Wasserman Test.	Special Wasserman Test.	Gonococcus Complement Fixation Test.
January ....	197	15	71
February ....	161	10	53
March ....	134	7	39
April ....	123	11	34
May ....	221	12	90
June ....	159	13	79
July ....	180	12	65
August ....	129	19	49
September ....	329	17	93
October ....	222	15	75
November ....	189	19	70
December ....	228	23	86
Totals ....	2,272	173	804

			Dark Ground Tests.	Microscopic Smears
January ....	....	....	8	85
February ....	....	....	8	102
March ....	....	....	1	85
April ....	....	....	4	111
May ....	....	....	3	148
June ....	....	....	3	146
July ....	....	....	5	146
August ....	....	....	1	110
September ....	....	....	3	201
October ....	....	....	4	125
November ....	....	....	3	155
December ....	....	....	5	163
Totals ....	....	....	48	1,577

## BACTERIOLOGICAL REPORT.

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REPORT BY PROFESSOR W. J. TULLOCH,  
Director, Bacteriological Department, University College.

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REPORT OF WORK CARRIED OUT IN THE DEPARTMENT  
OF BACTERIOLOGY, UNIVERSITY COLLEGE, DUNDEE,  
ON BEHALF OF DUNDEE PUBLIC HEALTH AUTHORITIES,  
FROM 1ST JANUARY, 1931, TO 31ST DECEMBER, 1931.

The Report is presented in the same fashion as in previous years so that continuity of arrangement may be maintained.

### I. CONTROL OF VENEREAL DISEASES.

#### (a) Control of Syphilis.

1. Dark Ground Examinations.
2. Wassermann Reactions (Routine).
3. Special Wassermann Reactions.
4. Examinations of cerebro-spinal fluids.

#### (b) Control of Gonorrhoea.

1. Microscopical examination of discharges and urines.
2. Gonococcus Complement Fixation tests.
3. Supply of vaccine.

### II. CONTROL OF OTHER COMMUNICABLE DISEASES.

#### (a) Diphtheria.

1. Throat swabs from cases and contacts.
2. Virulence tests.

#### (b) Enteric Fever.

1. Widal Reactions.
2. Blood Cultures.
3. Examinations of faeces and other secretions in convalescents.

#### (c) Tuberculosis.

#### (d) Puerperal Sepsis.

### III. SPECIAL INVESTIGATIONS.

- (a) Examination of Milk for contamination.
- (b) Examination of Milk for grading.
- (c) Examination of Milks for tuberculosis, and for the presence of the bacillus of Epizootic Abortion of cattle.
- (d) Examination of Milks for tuberculosis under the Tuberculosis Order.
- (e) Food-poisoning.
- (f) Primary meningitis.
- (g) Secondary meningitis.
- (h) Cases of meningismus.
- (i) Faeces for amoebic dysentery.
- (j) Bacillary dysentery.
- (k) Examination of crusts for smallpox.
- (l) Leptospirochaetosis.
- (m) Blood infections in pneumonia, and pyrexia of unknown origin.
- (n) Miscellaneous investigations.

### I. CONTROL OF VENEREAL DISEASES.

- (a) Control of Syphilis.

- 1. Microscopical examinations of material to demonstrate the presence of *Treponema Pallidum*.

During 1931, 51 examinations were made for the presence of *T. Pallidum* in suspected syphilitic sores. This number shows a decrease as compared with that of the previous year, and is too small. It appears probable, therefore, that there is a large number of cases of this disease whose diagnosis is unnecessarily delayed. The success of preventive and therapeutic measures in this, as in most other communicable diseases, is largely dependent upon early and accurate diagnosis. Delay in diagnosis and treatment means greater danger of spread of the disease, for, with modern methods of treatment, the infectivity of a case of syphilis can be markedly reduced in a very short time.

It is repeated and it cannot be sufficiently emphasised that the Wassermann Test, reliable though it be, cannot give the same unequivocal evidence of syphilitic infection as does the demonstration of *T. Pallidum* in morbid exudates.

Moreover, postponement of treatment means prolonged treatment, which is more costly, and the end results of which are much less satisfactory than when active treatment is commenced in the primary stage of the disease.

To call upon the venereal diseases officers to treat late cases of syphilis in which the diagnosis could have been established with certainty during the early phases of the infection is to place upon these officers a burden of work and a responsibility which is quite unnecessary, and defeats, to a large extent, the object of the scheme for the control of venereal diseases.

Of the 51 cases examined, 48 were sent by the venereal diseases officers, and only 3 by private practitioners.

## 2. Wassermann Reactions.

The improvements in the technique for conducting the Wassermann reaction, elaborated during 1926-27, continue to form the basis of the routine method of conducting that test in this laboratory, and the experience now obtained shows definitely that these improvements have greatly enhanced its reliability, and it may be said that the test now is as reliable as it is possible to make it.

The number of routine tests carried out was 4,093, of which 2,295 were from the clinic, 354 from other Public Health Institutions, 288 from private practitioners, and 1,156 from institutions other than those connected with the Department of Public Health.

To the total number there must be added 153 tests in which the material examined was cerebro-spinal fluid, and in such cases a reinforced method is always employed so that the total of qualitative Wassermann reactions conducted is 4,246 for 1931.

## 3. Special (Quantitative) Wassermann Tests.

The special quantitative Wassermann reaction, elaborated in 1925, continued in use during 1931 in order to control the treatment of cases attending the clinics.

It has proved extremely useful in determining the value of treatment, in determining the progress of treatment, and in the continued observation of Wassermann-fast cases. The number of investigations of that nature carried out during the year was 173, all but two being from the clinic, so that the grand total of Wassermann reactions for the year under consideration was 4,419.

## 4. Examination of Cerebro-spinal fluids.

During 1931 the complete investigation of cerebro-spinal fluids from cases of suspected neuro-syphilis was continued, the examination

in each instance being as complete as possible. In addition to the ordinary Wassermann test and reinforced Wassermann test, a complete chemical and cytological examination was performed while the Lange gold test was employed as a routine. Of the 153 investigations 6 were carried out on material from patients in Maryfield Hospital, and 1 from King's Cross Hospital, while the remainder of the specimens were sent by consultant physicians.

(b) Control of Gonorrhoea.

One is pleased to note that the interest in this disease is being maintained, for the fact must not be lost sight of that gonorrhoea may be even a more serious malady than syphilis.

1. Microscopical examination of discharges for the diagnosis of and control of treatment in gonorrhoea.

During 1931, 1,907 microscopical examinations of material for the diagnosis and control of gonorrhoea were carried out. These were distributed thus :—

	Discharges, including urine after prostatic massage.				
From other Public Health Institutions	....				168
From the Clinic	....	....	....	....	1,598
From institutions other than those controlled by the Public Health Department	....	....			62
From private practitioners	....	....	....		79

2. Investigations of cases of gonorrhoea by the Complement Fixation Reaction.

During 1931, 872 complement fixation tests have been carried out with a view to the control of treatment or diagnosis of gonorrhoea. They were distributed thus :—

From the Clinic	....	....	....	....	813
From other Public Health Institutions	....				6
From private practitioners	....	....	....		23
From institutions other than those controlled by the Public Health Department	....				30

The grand total, then, of examinations conducted for the diagnosis and control of venereal diseases is as follows :—



Dark Ground examinations	....	....	....	51
Wassermann reactions (ordinary)	....	....	....	4,093
Special Quantitative Wassermann reactions	....	....	....	173
Special examinations of cerebro-spinal fluids	....	....	....	153
Microscopical examinations of discharges and urines	....	....	....	1,970
Gonococcus complement fixation tests	....	....	....	872
				<hr/>
				7,312
				<hr/>

### 3. Gonococcal Vaccine.

During 1931 the laboratory has continued to supply both male and female clinics with gonococcus vaccines upon a large scale.

## II. EXAMINATIONS FOR THE CONTROL OF OTHER COMMUNICABLE DISEASES.

### (a) Diphtheria.

#### 1. Cultural examination of throat swabs.

Although during 1931 there has been no notably serious outbreak of diphtheria in Dundee, nevertheless a considerable number of cases have occurred, and the total number of swabs examined was 931.

In connection with the examination of throat swabs, two points call for comment, viz. :—(1) The result of the bacteriological examination of the throat is of great importance to the public health officer, and its value to the practitioner is no less great when he is dealing with doubtful cases, but when the clinical features suggest diphtheria, it is unwise to delay the administration of anti-toxin until the result of the bacteriological examination is available. A case which is clinically diphtheria should be treated as diphtheria. If complete investigation negatives the diagnosis, no harm is done, but harm is liable to be done to cases of diphtheria when the administration of serum is delayed. (2) In cases which are clinically diphtheria it is well to have the diagnosis verified by bacteriological examination, but it is especially important that treatment be initiated forthwith, and in order that no misunderstanding should arise from this cause, every report on the examination of a throat swab which is negative is sent on a form on which the following is printed in red :—

“*IMPORTANT*.—Please note that a negative swab result does not exclude diphtheria. The laboratory findings pre-suppose that

“the suspicious lesion has been touched with the swab—NOT ALWAYS  
 “POSSIBLE IN CERTAIN TYPES OF DIPHTHERIA, ESPECI-  
 “ALLY LARYNGEAL DIPHTHERIA. CLINICALLY SUG-  
 “GESTIVE cases should be treated without awaiting result of swab.  
 “DELAY IS DANGEROUS.”

## 2. Virulence Test.

In September, 1931, Professor M'Leod, of Leeds, in collaboration with others, published some very interesting and important observations on the bacteriology of Diphtheria.

Briefly, their observations were that by the use of a specialised culture medium it was possible to differentiate diphtheria bacilli *inter se*. One variety, designated “*baeillus diphtheriae mitis*,” appears to be associated with mild outbreaks of the disease, and another, “*baeillus diphtheriae gravis*,” with more serious cases.

Since the publication of this work we have investigated all cultures of *baeillus diphtheriae* by the method described, and up to the end of 1931 only “*mitis*” strains were recovered from cases occurring in Dundee.

It is proposed to continue this work as it may ultimately prove to be of considerable significance, both to preventive medicine and to therapeutics.

During 1931, 32 tests have been carried out to determine the virulence of diphtheroid bacilli present in pharyngeal secretions or ear discharges of convalescent or suspected carriers.

All but one of these were from patients in King's Cross, and, as in previous years, such tests have proved of value in expediting the discharge of patients from the Isolation Hospital.

### (b) Control of Enteric Fever.

During 1931 there have been no definite outbreaks of enteric fever of a formidable nature in the city, and the relation of the cases, which were irregular in occurrence and distribution, to one another was difficult to establish.

It is worthy of note that all the cases of enteric fever which occurred in Dundee during the year under consideration were due to infection with *baeillus paratyphoid Beta*, with one exception, in which the causal micro-organism was *baeillus typhosus*.

## 1. Widal Reactions.

In all, 212 tests were carried out on 106 specimens of blood. The duplicate test against both typhoid and para typhoid Beta continues to be employed as a routine.

In 23 instances a positive result was obtained, 5 being from a case of typhoid and 18 from cases of infection with bacillus paratyphosus Beta.

During the year under review it was decided to test all bloods submitted for the Widal reaction against the bacillus abortus of Bang. Although an occasional positive of diagnostic significance has been obtained in the case of specimens sent from other areas, we have not so far obtained one from the city.

In this connection it was deemed advisable, in view of the frequent occurrence of bacillus abortus in market milk, to determine the number of persons whose blood contained antibodies to that micro-organism.

In all, approximately 1,800 specimens were so investigated, and the following results obtained :—

- (a) In 22 instances the organism was agglutinated in presence of a 1/25 dilution of serum.
- (b) In 5 instances with a 1/50 dilution.
- (c) In 5 instances with a 1/100 dilution.
- (d) In 6 instances with a 1/200 dilution.

As the persons from whom these specimens were obtained did not exhibit any signs of undulant fever, it follows that an agglutination reaction with the bacillus abortus becomes of diagnostic significance only when the patients' serum reacts therewith in concentrations lower than 1/200.

## 2. Blood cultures.

The most satisfactory of all methods for diagnosing enteric fever is blood culture, as by this means an early and accurate diagnosis can be established. In the past, this method has not found much favour among the practitioners of the city, but each year sees an increased number of such investigations in cases of continued fever in which diagnosis on clinical grounds may be difficult to make, and during 1931 blood culture, as a means of establishing a diagnosis for this disease, was used in 23 cases. Apparently these were submitted for examination too late in the disease, for positive results were obtained in only two instances.

This observation emphasises that it is not yet appreciated by the medical profession of the city how valuable blood culture is as a means of establishing an early diagnosis of enteric fever.

### 3. Examination of Faeces, Urine, etc., from Enteric Convalescents.

#### (i) Faeces.

During 1931, 107 specimens of faeces from convalescent cases of enteric fever or from possible carriers of the disease were examined, the typhoid bacillus being found in two instances, and bacillus para typhoid Beta in 28.

#### (ii) Urines.

Of urines, 78 specimens were examined, bacillus typhosus being recovered from one, and bacillus paratyphosus Beta from seven.

#### (iii) Foodstuff.

In addition to these investigations, the laboratory was called upon to investigate 6 consignments of periwinkles which were considered as possible vectors of infection in one of the outbreaks of para typhoid fever. No evidence was obtained from the examination that the disease was due to the consumption of these shellfish, but one consignment did indicate marked sewage contamination.

#### (iv) Note on an unusual case of infection with bacillus paratyphoid Beta.

It very occasionally happens that the micro-organisms which are responsible for the causation of enteric fever—a disease of indefinite onset and relatively slow development—give rise to much more acute infections of abrupt onset and resembling cases of food-poisoning.

One such case occurred in Dundee during 1931. The affection proved fatal, and the condition was only diagnosed by laboratory investigation post-mortem.

This case was proved definitely to be fulminating enteric fever and not food-poisoning, and attention is called thereto so that occurrence of such cases may be appreciated, especially as they are liable to be mistaken either for acute surgical conditions of the abdomen, or for irritant poisoning.



The organisms responsible for these infections were :—

Streptococcus	....	....	....	....	....	2
Mirococcus Tetragenus	....	....	....	....	....	1
Diplococcus Crassus	....	....	....	....	....	1

while in 7 instances, although there were no micro-organisms actually present in the fluid, the nature of the cellular response was that found in acute meningitis, so that the findings suggested an infective process in proximity to, although not actually invading, the meninges.

#### (h) Cases of Subacute Meningismus.

During the year under consideration no cases of this kind were encountered.

#### (i) Amoebic Dysentery.

Only one case of suspected amoebic dysentery occurred in the City, but the result of complete investigation negated this diagnosis.

#### (j) Bacillary Dysentery.

During 1931, as in previous years, cases of bacillary dysentery, due to the mannite fermenting bacilli, have occurred in Dundee, and as before, these have been regarded as "food poisoning" until laboratory investigation revealed the true character of the illness.

The number of suspected outbreaks of this disease during the year under consideration was 34, of which only 9 proved to be bacillary dysentery, while 2 were other conditions.

Of the 9 instances in which a positive result was obtained, all but one were single sporadic cases, and in this single instance only two cases related to one another occurred.

The investigation of material from cases and contacts comprised :—

Examination of faeces from positive cases ....	14, number of cases, 9			
Agglutination tests with serum of suspected cases ....	5	„	„	—
Negative examinations, but faeces suggestive, ....	4	„	„	4
Completely negative examinations ....	26	„	„	20
	—			
	49			

In each instance the micro-organism responsible for these cases was completely investigated with a view not only to determine that it belonged to the mannite fermenting group, but also, if possible, to place



it in one or other of the serological sub-groups into which the mannite fermenting dysentery bacilli can be divided.

The findings were as follows :—

Sub-group " V "	....	....	....	....	1
Sub-group " XY "	....	....	....	....	1
Sub-group " VY "	....	....	....	....	1
Sub-group " Y "	....	....	....	....	1
Sub-group " VWY "	....	....	....	....	1
Sonne III Bacillus	....	....	....	....	1
Sub-group not determined	....	....	....	....	3
					—
					9

The seasonal incidence of these sporadic cases of bacillary dysentery is not without interest, for one expects them to occur during the warmer period of the year. In the year under consideration, however, this was not the case, as the following table indicates :—

January, 1.	April, 1.	July, 2.	October, 1.
February, 0.	May, 0.	August, 0.	November, 0.
March, 2.	June, 0.	September, 0.	December, 2,

a finding that resembles observations made in previous years.

#### (k) Variola Vaccinia Flocculation Reaction.

During 1931 no cases of smallpox occurred in the City, but in 3 instances the flocculation reaction was employed to corroborate a diagnosis of severe chickenpox.

The year 1931 saw a great development of research on the subject of smallpox and vaccinia in the laboratory, and this work has been made the subject of a report to the Medical Research Council. This report was published in July 1931—Special Research Series, Medical Research Council, No. 156.

In this connection it may be noted that the help of the laboratory has been requested by other public health authorities to assist in the investigation of doubtful cases of smallpox, and in one instance this help proved to be of special value in excluding smallpox, as the patient came into contact with numerous officials of the Crown, and considerable inconvenience would have ensued had the establishment of a definite diagnosis been delayed.

(l) *Leptospirochaetosis*.

There were 2 suspected cases of infection with *leptospira ictero-haemorrhagiae* during 1931, neither of which, however, proved actually to be a case of Weil's disease.

## (m) Blood Cultures in Pneumonia, and Pyrexia of Unknown Origin.

Generalised blood infection occurs fairly often in lobar pneumonia, and as the gravity of the case is to some extent related to the occurrence of a blood infection, we have been called upon during the year under consideration to investigate 15 cases of pneumonia by blood culture.

In addition, 10 blood cultures were examined in cases classed as "pyrexia of unknown origin," or suspected undulant fever.

## (n) Miscellaneous Investigations.

In addition to the work categorised under the above headings, a number of miscellaneous tests, etc., have been undertaken on behalf of the Public Health Authority of the City of Dundee.

Among these miscellaneous investigations were the following:—

## (i) Vincent's Angina.

Material from 8 cases of suspected Vincent's Angina was investigated during the year under consideration.

## (ii) Investigations for King's Cross Hospital.

1. Complete examination of sputum	....	....	4
2. Complete examination of pus from abscesses	....	....	2
3. Complete examination of urine	....	....	3
4. Serological typing of pneumococcus	....	....	1
5. Culture in case of Scarlet Fever, with serological examination of the organism isolated	....	....	1
6. Extended examination of blood by serological tests in cases of "pyrexia of unknown origin"	....	....	1

## (iii) Maryfield Hospital.

1. Complete examination of pus	....	....	....	2
2. Supply of material for production of protein shock	....	....	....	1
3. Complete examination of faeces	....	....	....	2

## (iv) Ashludie Sanatorium.

1. Complete examination of sputum	....	....	2
2. Complete examination of urine	....	....	3

## (v) One case each of malaria, infestation with intestinal parasite, streptococcal mastitis of a cow, and taenia infection were very fully investigated.

The work of the laboratory on behalf of the Public Health Authority of the City during 1931 has been very similar to that in previous years, the only outstanding feature being naturally the increased number of investigations resulting from the survey of market milk carried out during the year.

It has been a very pleasant duty indeed to conduct the work herein reported, and the success which has attended it is due in no small measure to the ready, willing, and helpful co-operation of the staffs of the Public Health Department and of the Hospitals and Clinics attached thereto.

This co-operation does much to lighten the work, makes it more interesting, increases efficiency, and offers educational facilities to the Department and its ancillary clinics.

I regret that during 1931 we lost the services of Mr James Craigie, M.B., Ch.B., Ph.D., D.P.H., on his appointment as research associate at the Connaught Laboratories of the University of Toronto.

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## MATERNITY SERVICES.

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REPORTS BY DR. MARGARET SCOTT DICKSON,  
Maternity Services Medical Officer.

DR. MARGARET FAIRLIE.

DR. H. GORDON CAMPBELL.

DR. DORA W. GERRARD.

The work of the Maternity Services has proceeded very smoothly under the reorganisation and combined arrangements of the Nursing Staff.

Although the number of older children attending the Infant Clinics is still fairly large it has decreased somewhat in proportion to the attendance of infants; and 40% of these attendances have been made by children of 1-2 years of age, who may still be regarded as babies in many ways. When the extended premises become available more of the older children may be cared for at the pre-school clinics, thus allowing more time to be devoted to the fuller instruction of the mothers in the care of the young infants.

The only new feature in the Scheme has been the opening of Polepark Day Nursery in the house at 3 Fleuchar Street previously used as a Reception House. This replaces the Nursery in 33 Isles' Lane, where the premises were inadequate for a Day Nursery and which is now used as a Clinic.

The new nursery has been provided out of a fund collected in the town by Mr S. G. Fraser, Convener of the Public Health Committee.

The rooms used for the children are ideal, being large and airy and facing south, thus receiving the maximum amount of sunlight.

In addition to the Play room, Rest room, and Cot room, there is also a smaller room which is used as an Ante-natal Clinic for mothers.

The large garden and ground adjoining has been mostly laid out in grass and makes an ideal playground for the children in suitable weather.

There is accommodation for 50 children ; but owing to the general trade depression prevailing during the year the attendances hitherto have not exceeded 20.

I wish to record my appreciation of the services of the Nursing Staff who have adapted themselves so willingly and efficiently to the varying duties under the new scheme, and also to the members of the Dundee Voluntary Health Workers Association, who have continued their valuable help at the Clinics, Sewing Classes, and in the provision of garments for the babies and children attending the Clinics and the Day Nurseries.

I append the detailed account of the work done under the Scheme, including the reports of the Medical Officers in charge of the various special Clinics.

### Infantile Mortality.

(a) Number of deaths	....	....	....	....	317
(b) Rate per 1,000 births	....	....	....	....	92
(c) Number of deaths and rates per 1,000 births classified according to age groups and causes of death—See Table XII., Statistical Tables and Charts.					

### Births.

(a) Number registered (corrected)	....	....	....	3,431
(1) Legitimate	....	....	....	3,177
(2) Illegitimate	....	....	....	254
(b) Number notified	....	....	....	3,553
(c) Number classified according to nature of attendance (doctor, midwife, etc.) :—				
Doctor	....	....	....	411
Doctor and Midwife	....	....	....	205
Midwife	....	....	....	1,152
Maternity Hospital	....	....	....	1,527
Maternity Home	....	....	....	103
Maryfield Hospital	....	....	....	32
Parents	....	....	....	60
Other Sources	....	....	....	63
(d) Number of Stillbirths (births of dead children)	....			202

### Maternal Mortality.

(a) Number of deaths resulting from miscarriage or childbirth	....	....	....	....	15
(b) Number of deaths resulting from Puerperal Sepsis					7



## DUNDEE, 1931.

## BIRTHS IN AREA OR DISTRICT.

Total No. of Births during 1931 (uncorrected).	Total No. of Deaths of Newly-Born Children (within 10 days). during 1931	Actual No. of Births Attended by Midwives during 1931	Actual No. of Deaths of Newly-Born Children occurring in the Practice of Midwives during 1931 (within 10 days).	Actual No. of Cases not attended at Birth by a Doctor or Midwife during 1931.	Deaths
3588	94	1362	17	0	0

## CASES OF OPHTHALMIA NEONATORUM.

Total No. of Cases during 1931.	Actual No. of Cases occurring in the Practice of Midwives during 1931.	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1931.
52	31	0

## CASES OF PUERPERAL SEPSIS.

Total No. of Cases during 1931.	Total No. of Deaths during 1931.	Actual No. of Cases occurring in the Practice of Midwives during 1931.	Actual No. of Deaths occurring in the Practice of Midwives during 1931.	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1931.	Deaths.
20 (Notifications).	2	5	0	0	0

## CASES OF PUERPERAL PYREXIA.

Total No. of Cases during 1931.	Total No. of Deaths during 1931.	Actual No. of Cases occurring in the Practice of Midwives during 1931.	Actual No. of Deaths occurring in the Practice of Midwives during 1931.	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1931.	Deaths.
39	7*	13	3	0	0

# CASES OF STILLBIRTH (DEAD BORN).

Total No. of Cases during 1931.  
302

Actual No. of Cases occurring in the Practice of Midwives during 1931.  
26

## CASES OF EMERGENCY.

Total No. of Cases of Emergency, in which Medical Practitioners have been called in under Section 22 of the Midwives (Scotland) Act, 1915, during 1931, distinguishing the different classes of emergency.

Ante-Natal.	Post-Natal.	Infant.	Total.
82	40	84	395

327 Ante-natal cases who were not complaining of illness, were sent for examination to the Ante-natal Clinic.

\* 5 Cases notified as " Puerperal Pyrexia "—Final diagnosis at death :—" Puerperal Sepsis."

2 Cases notified as " Puerperal Pyrexia "—Final diagnosis at death :—

(1) Contracted Pelvis Caesarean Section, Broncho Pneumonia.

(2) Normal Confinement, Ruptured Perineum complicated with profound Anaemia, Larngcal and Pulmonary Tuberculosis.

## MIDWIVES (SCOTLAND) ACT, 1915.

## Report under Midwives (Scotland) Act, 1915.

The following is a list of Midwives who, during January 1932 intimated their intention to practise Midwifery in the City of Dundee :—

Name.	Address.	C.M.B. Re. No.	Remarks.
Anderson, Mrs Isabella	197 Princes Street	2863	Trained.
Andrews, Miss Dora B.	3 Boyd Place, B.F.	8253	Trained.
Angus, Mrs Clementina	96 King Street, B.F.	3057	Bona fide.
Arnott, Miss Jean	36 Dundonald Street	1182	Bona fide.
Bowman, Mrs Jessie	10 Hilltown	4958	Trained.
Boyd, Miss Agnes	138 Hilltown	8994	Trained.
Brodie, Miss Chrissie	Craigie Nursing Home	7947	Trained.
Cartmill, Mrs Ann	11 Gardner Street	3373	Bona fide.
Craig, Mrs Margaret	10 Albert Street	6994	Trained.
Dobson, Mrs Rachel	6 Glamis Drive	4423	Trained.
Duffus, Miss Mary	34 Victoria Street	2567	Trained.
Gouk, Miss Margaret	10 Tofthill, Lochee	6221	Trained.
Gowans, Miss Eliza	2 Erskine Street	5925	Trained.
Gunn, Mrs Sarah	9 Corso Street	5404	Trained.
King, Mrs Ellen	53½ Perth Road	755	Trained.
Low, Mrs Helen	44 Ann Street	5186	Trained.
Lowe, Mrs Jane R.	2 Brown Street	432	Trained.
Masson, Mrs Jane	3 Tayview Buildings, B.F.	3122	Bona fide.
Neill, Miss Jane	12 Brown Constable Street	7434	Trained.
Ramsay, Mrs Ann C.	4 Ogilvie's Road	733	Trained.
Rickard, Mrs Helen	29 Step Row	6453	Trained.
Smith, Mrs Jamesina	73 Church Street	1553	Bona fide.
Stewart, Miss Jean	325 King Street, B.F., or 77 Albert Street	7713	Trained.
Tulloch, Mrs Isabella	20 Corso Street	6231	Trained.
Bateman, Miss Ethel	Clement Pk. Maternity Home (S.A.H.), Lochee	8643	Trained.
Peel, Miss Sarah	do.	9142	Trained.
Derbyshire, Miss Ellen	do.	8255	Trained.

(1) In January 1931 26 Midwives notified their intention to practice Midwifery in Dundee. During the year 2 Midwives gave notice of their intention to practice in Dundee. 1 gave up practice.

(2) This leaves on the Local Roll of Midwives at the end of December 1931 27 names. 21 of the 27 are actually practising as Midwives.

(3) The Midwives attended a total of 1,362 births (including 205 cases where the Midwife acted as a Midwife though a Doctor was in attendance)—that is 37·9 per cent. of the total births occurring in the City during the year, including stillbirths.

(4) The extent of the individual practice of the Midwife varies, one Midwife having 166 cases, another only attended 3 cases. The average to each Midwife in practice is 65 cases.

(5) 90 visits were paid by the Inspector of Midwives and her Assistant to the Midwives' homes.

(6) Opportunity was given to the Midwives to attend the lectures in connection with the College of Nursing this year.

(7) The general working of the Act has again been in every way satisfactory. There has been no neglect of any of the Central Midwives' Board Rules.

The very remarkable increase in the number of Midwives' cases sent to the Municipal Ante-natal Clinics proves that the Midwives are realizing the great importance of efficient Ante-natal care.

There is a reduction in the total number of cases attended by Midwives during 1931 (1,357 as compared with 1,524 in 1930), but this is undoubtedly due to the adverse economic conditions which have prevailed in the town for the past year, more patients having availed themselves of institutional treatment.

The Midwives have sent 409 mothers to Ante-natal Clinics or to private Doctors for advice and supervision.

### Notifications.

819 notifications have been received from Midwives as follows :—

(1) Application for Medical Assistance—(a) Mother	....	638
(b) Child	....	84
(2) Notification of Death —(a) Mother	....	2
(b) Child	....	3
(3) Notification of Stillbirth	....	23
(4) Notification of Liability to be a source of Infection	....	7
(5) Notification of laying out a dead body	....	5
(6) Notification of patients' failure to follow advice	....	54
(7) Notification of Artificial Feeding	....	3

**Ante-Natal, 409 cases.**

Examinations	....	....	....	327
Varicose Veins	....	....	....	13
Pain (various)	....	....	....	13
Purulent Vaginal Discharge	....	....	....	11
Carious Teeth	....	....	....	9
Excessive Sickness	....	....	....	8
Unclassified	....	....	....	6
Haemorrhage	....	....	....	5
Albuminuria	....	....	....	8
Threatened Abortion	....	....	....	3
Swelling of Labia	....	....	....	2
Swelling of Groin	....	....	....	1
Cough	....	....	....	1
Inflammation (Bladder)	....	....	....	1
Swelling of Hands and Feet	....	....	....	1

**Labour, 189 cases.**

Prolonged Labour	....	....	....	71
Ruptured Perineum	....	....	....	62
Abnormal Presentation	....	....	....	23
Ante Partum Haemorrhage	....	....	....	9
Adherent Placenta	....	....	....	9
Exhaustion	....	....	....	6
Placenta Praevia	....	....	....	3
Laceration of Vulva	....	....	....	3
Post Partum Haemorrhage	....	....	....	1
Collapse	....	....	....	1
Extreme Nervousness	....	....	....	1

**Post-Natal, 40 cases.**

High Temperature	....	....	....	10
Varicose Veins	....	....	....	6
Pains (various)	....	....	....	6
Mastitis	....	....	....	4
Collapse	....	....	....	3
Purulent Vaginal Discharge	....	....	....	2
Headache	....	....	....	1
Cough	....	....	....	1
Swelling on Face	....	....	....	1
Debility	....	....	....	1
Irritation of Bladder	....	....	....	1
Rapid Pulse	....	....	....	1
Fits	....	....	....	1
Dental Abscess	....	....	....	1
Faecal Vomiting	....	....	....	1

**Infant, 84 cases.**

Stillbirths	....	....	....	19
Discharging Eyes	....	....	....	18
Weakly and Premature Children	....	....	....	14
Congenital Deformities	....	....	....	8
Unclassified	....	....	....	8
Cyanosis	....	....	....	3
Difficulty in Breathing	....	....	....	2
Retention of Urine	....	....	....	2
Excessive Sickness	....	....	....	2
Asphyxia	....	....	....	1
Septic Pemphigus	....	....	....	1
Malaena	....	....	....	1
Death of Infant	....	....	....	1
Abominal Distension	....	....	....	1
Icterus Neonatorum	....	....	....	1
Haematemesis	....	....	....	1
Constipation	....	....	....	1

**Puerperal Deaths.**

During 1931 an inquiry was made into 28 deaths of women occurring in childbirth or within 28 days after or later if illness originated during pregnancy, childbirth, or puerperium. 6 of the above deaths occurred in women whose homes were outwith the Dundee Boundary, but who had been brought into the City for Hospital treatment due to complications arising during pregnancy, parturition, or puerperium, and the information regarding these cases was sent to the Medical Officers of the District to which they belonged.

The 22 deaths occurring in Dundee were attended at birth as follows :—

Attended by doctor	....	....	....	....	3
Attended by a doctor and midwife	....	....	....	....	2
Attended by Maternity Hospital, I.P.	....	....	....	....	13
Attended by Maternity Ward (undelivered) (sent in by doctor)	....	....	....	....	1
Attended by midwife	....	....	....	....	2
Attended by Maryfield Hospital	....	....	....	....	1



### Classification of Notified Causes of Death (22 cases) :—

(a) Deaths from emergencies and other causes directly due to parturition :—

Puerperal Septicaemia	....	....	....	....	6
Septicaemia following incomplete abortion and					
Lobar Pneumonia	....	....	....	....	1
Pregnancy, Contracted Pelvis, Ceasarian Section,					
Broncho Pneumonia	....	....	....	....	1
Natural Causes, probably Pulmonary Throm-					
bosis (seen after death)	....	....	....	....	1
Post Partum Haemorrhage, Shock	....	....	....	....	1
Albuminuria, Chronic Bronchitis, Asthma,					
General Anaesthesia (In Labour)	....	....	....	....	1
Thrombosis Uterine Veins, Toxic Renal necrosis	....	....	....	....	1
Uncontrollable Vomiting of Pregnancy	....	....	....	....	1
Eclampsia, Ante and Post Partum	....	....	....	....	1
Ruptured Ectopic Gestation	....	....	....	....	1
				—	15

(b) Causes of Death not directly connected with parturition :—

Anaemia (secondary), Pulmonary Tuberculosis,					
Tuberculous Laryngitis	....	....	....	....	1
Cardiac Failure (10th day puerperim)	....	....	....	....	1
Myocardial degeneration, Acute Mania of Preg-					
nancy	....	....	....	....	1
Septic Pneumonia	....	....	....	....	1
Mitral Stenosis (Pregnancy)	....	....	....	....	1
				—	5

(c) Causes of Death associated with Pregnancy but not with parturition :—

Pregnancy, Albuminuria, Chronic Bronchitis and					
Nephritis, Hypostatic Pneumonia	....	....	....	....	1
Hyperemesis Gravidarum (2 months abortion)	....	....	....	....	1
				—	2

## Puerperal Sepsis (20 cases).

	Notified.	Primipara.	Multipara.	Admitted to Hospital.	Recovered.	Died.
Doctors ....	13	2	5	7	7	—
Midwives ....	—	—	2	2	2	—
Doctor and Midwife ....	—	2	1	3	3	—
Maternity Ward—I.P.	6	3	2	5	3	2
O.P.	1	—	1	1	1	—
Clement Park ....	—	—	1	1	1	—
St. Ronan's ....	—	1	—	1	1	—
	20	8	12	20	18	2

Where Delivered :—	RECOVERED.		DIED.	
	Primipara	Multipara.	Primipara.	Multipara.
Home ....	5	8	—	—
Maternity Ward, D.R.I. :—				
I.P.	3	—	—	2
O.P.	—	1	—	—
Maternity Home ....	—	1	—	—
	8	10	—	2

Where Treated :—				
Home ....	—	—	—	—
D.R.I. ....	1	—	—	—
K.C.H. ....	6	10	—	2
St. Ronan's Hostel ....	1	—	—	—
	8	10	—	2

Home Conditions :—				
Good ....	7	8	—	—
Bad ....	1	1	—	2
Institution ....	—	1	—	—
	8	10	—	2

## Particulars of Cases.

	Recovered.	Died.	Total
<i>Primipara.</i>			
Normal Confinement ....	1	—	1
Normal Confinement (Concealed Pregnancy)			
Severely Ruptured Perineum ....	1	—	1
Normal Confinement, Ruptured Perineum,			
Laceration of Vulva ....	1	—	1
Instrumental Delivery ....	1	—	1
Instrumental Delivery with Episiotomy ....	2	—	2
Instrumental Delivery with Ruptured Per-			
ineum ....	2	—	2
	8	—	8
<i>Multipara.</i>			
Normal Confinement....	2	—	2
Normal Confinement, Slight Abrasion Per-			
ineum ....	1	—	1
Normal Confinement, Lacerations of Vagina	1	—	1
Instrumental Delivery ....	1	—	1
Breech Presentation, Ruptured Perineum	1	—	1
Abortions (2 months, 3 months, 5 months)	3	—	3
Criminal Abortion ....	1	—	1
Ante Partum Haemorrhage, Instrumental			
Delivery ....	—	1	1
Funis Presentation, Papular Dermatitis ....	—	1	1
	10	2	12

## Puerperal Pyrexia (39 cases).

	Notified.	Primipara.	Multipara.	Admitted to Hospital.	Nursed at Home.	Recovered.	Died.
Doctor ....	22	1	5	5	1	4	2
Doctor and Midwife ....	—	4	1	4	1	3	2
Midwife ....	—	4	4	6	2	7	1
Maternity Staff—I.P.	15	7	5	12	—	10	2
O.P.	2	—	3	3	—	3	—
Clement Park M.H. ....	—	2	—	2	—	2	—
Nursing Home ....	—	2	—	—	2	2	—
Handywoman ....	—	—	1	1	—	1	—
	39	20	19	33	6	32	7

Where Delivered :—	RECOVERED.		DIED.	
	Primipara.	Multipara.	Primipara.	Multipara
Home ....	8	10	1	4
Mat. Hosp.—I.P. ....	6	4	1	1
O.P. ....	—	—	—	—
Clement Park Mat. Home	2	—	—	—
Nursing Home ....	2	—	—	—
	18	14	2	5

Where Treated :—				
Home ....	3	1	—	—
D.R.I. ....	7	4	1	2
K.C.H. ....	6	9	1	3
Nursing Home ....	2	—	—	—
Clement Park Mat. Home	—	—	—	—
	18	14	2	5

Home Conditions :—				
Good ....	13	9	1	5
Bad ....	3	5	1	—
Institution ....	2	—	—	—
	18	14	2	5

### Particulars of Cases.

	Recovered.	Died.	Total.
<i>Primipara</i> :—			
Contracted Pelvis, Ceasarian Section, Broneho			
Pneumonia ....	1	1	2
Instrumental Delivery ....	—	1	1
Eclampsia (Post Partum) ....	1	—	1
Normal Confinement ....	7	—	7
Normal Confinement with Ruptured Perineum	6	—	6
Breech Confinement with Ruptured Perineum	2	—	2
R.O.P. with Ruptured Perineum ....	1	—	1
	18	2	20

*Multipara :—*

Normal Confinements	....	....	....	....	8	2	10
Normal Confinement with Ruptured Perineum					2	1	3
Normal Confinement with Ruptured Perineum, complicated with profound Anaemia, Laryngeal Tuberculosis and Pulmonary Tuberculosis	....	....	....	....	—	1	1
Instrumental Delivery with Ruptured Per- ineum	....	....	....	....	1	—	1
Twin Pregnancy	....	....	....	....	1	—	1
Incomplete Abortion	....	....	....	....	1	1	2
Criminal Abortion	....	....	....	....	1	—	1
					14	5	19

**Ophthalmia Neonatorum.**

	Doctors.	Midwives.	Maternity Ward.		Doctor and Midwife.	Handy Woman.	Found Dead.	C.W. Dept.	Eye Institution.	Maryfield Hospital.	Mat. Home.	Total.
			In-Pat.	Out-Pat.								
By whom Notified	23	14	1	0	4	—	—	9	—	1	—	52
By whom Attended	6	25	10	4	6	—	—	—	—	1	—	52
Total No. of Births attended in 1931	694	1,157	1,546		205	—	—	—	—	33	103	3,738

Treated in Institutions.		Treated at Home.		Type of Case.		Result.		Initial Visits.	Not Visited (in nursing Home).	Revisits.
				Severe.	Mild.	Complete Recovery.	Died during Treatment.			
King's Cross Hospital	9	} 11	41	13	39	51	1	51	1	462
Maryfield Hospital	2									

13 cases of the severe type were attended at birth as follows :—

Maryfield Hospital	....	....	....	....	1
Doctor	....	....	....	....	1
Midwife	....	....	....	....	5
Maternity Ward—In-Patient	....	....	....	....	4
Out-Patient	....	....	....	....	1
Doctor and Midwife	....	....	....	....	1



11 cases were admitted to Hospital, in one case the infant died of Congenital Syphilis during treatment.

Smears were taken in 47 cases :—

32 were negative.

4 were positive.

11 were suspicious

In 5 cases smears were not taken from the eyes :—

1 was in Maryfield Hospital.

1 was in a Maternity Home.

2 refused to allow smear to be taken.

1 eye was clear at first visit.

### Stillbirths.

202 stillbirths were notified during 1931.

26 of these occurred in the practice of Midwives :—

17 were full-time infants.

9 were premature infants.

Of the 17 full-time infants :—

6 were cases of macerated foetus.

5 were due to complicated labour or congenital deformities.

6 were unclassified.

Of the 9 premature infants :—

3 were cases of macerated foetus.

3 were due to complicated labour.

3 were unclassified.

### Home Visitation.

					No. of Cases Visited.	Total Visits Paid.
Infants	....	....	....	....	3,385	14,875
Mothers—Ante-natal	....	....	....	....	1	1
Post-natal	....	....	....	....	4	7
					<hr/> 3,390 <hr/>	<hr/> 14,883 <hr/>

## Ante-natal Consultations.

REPORT BY MARGARET FAIRLIE, M.B., CH.B.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending	....	....	584
(b) Total number of attendances	....	....	1070
(c) Classified summary of conditions found :—			
Advice only	....	....	464
Conditions due to pregnancy	....	....	24
Ante-partum Haemorrhage	....	....	5
Albuminuria	....	....	9
Oedema	....	....	3
Hydramnios	....	....	3
Vomiting	....	....	2
Threatened Abortion	....	....	1
Twins	....	....	1
Conditions aggravated by Pregnancy	....	....	24
Constipation	....	....	1
Discharge	....	....	8
Varix	....	....	13
Haemorrhoids	....	....	2
Conditions complicating Pregnancy	....	....	43
Retroversion	....	....	5
Contracted Pelvis	....	....	5
Malpresentations	....	....	22
Hernia	....	....	2
Gonorrhoea	....	....	1
Bartholin's Abscess	....	....	1
Various	....	....	7
(d) Number of Cases :—			
New Cases.			
(1) Referred to Ante-Natal Ward	....	....	13
(2) Referred to Family Doctor	....	....	2
(3) Treated at Clinic	....	....	540
			<hr/> 555
Revisits.			
(1) Referred to Ante-Natal Ward	....	....	7
(2) Referred to Family Doctor	....	....	0
(3) Treated at Clinic	....	....	508
			<hr/> 515

### Post-Natal and other Consultations.

#### New Cases.

Post-Natal	....	....	....	....	....	46
Not Pregnant	....	....	....	....	....	6

#### Classified summary of conditions found :—

Advice only	....	....	....	P.N.	26	N.P.	3
Displacements	....	....	....	„	9	„	1
Misearriage	....	....	....	„	1	„	0
Menorrhagia	....	....	....	„	4	„	1
Other Haemorrhages	....	....	....	„	3	„	0
Various	....	....	....	„	5	„	1

#### New Cases.

(1) Referred to D.R.I.	....	....	P.N.	9	N.P.	3
(2) Referred to Family Doctor	....	....	„	4	„	0
(3) Treated at Clinie	....	....	„	35	„	3

#### Revisits.

(1) Referred to D.R.I.	....	....	P.N.	2
(2) Referred to Family Doctor	....	....	„	0
(3) Treated at Clinie	....	....	„	14

### Child Welfare Consultations.

Eight weekly sessions of  $2\frac{1}{2}$  hours each were held in Dundee and Broughty Ferry, with five weekly sessions in Dundee and two in Loehec for special Ultra Violet Ray treatment.

#### (a) Number of cases attending :—

(1) Under one year of age	....	....	....	1,355
(2) Over one year of age	....	....	....	1,233
(3) Mothers—A.N.	....	....	....	—
P.N.	....	....	....	22
				<hr/>
				2,610
				<hr/>

#### (b) Total number of attendances :—

(1) Under one year of age	....	....	....	12,643
(2) Over one year of age	....	....	....	14,563
(3) Mothers—A.N.	....	....	....	—
P.N.	....	....	....	48
				<hr/>
				27,254
				<hr/>

(c) Illnesses recorded on admission to the Child Welfare Clinics :—

(1) Children under one year of age.

Of the 1,067 babies under one year of age admitted to the 6 clinics, 80 (7·49%) showed no disease or congenital defect. The remaining 987 showed 2,595 diseases or defects classified as follows :—

Diseases of the digestive system	....	....	....	1,292
Diseases of the respiratory system	....	....	....	309
Diseases of nutrition—				
Rickets	....	....	....	20
Other disorders of nutrition	....	....	....	23
			—	43
Diseases of the skin	....	....	....	290
Diseases of the nervous system	....	....	....	1
Diseases of the eye	....	....	....	43
Diseases of the ear, nose, and throat	....	....	....	16
Congenital defects	....	....	....	539
Surgical diseases	....	....	....	23
Infectious diseases (Whooping Cough)	....	....	....	2
Various	....	....	....	37
				<hr/>
				2,595
				<hr/>

(2) Children over one year of age.

Of the 205 children between one and five years of age admitted to the clinics, 6 (2·9%) showed no disease or congenital defect. The remaining 199 showed 440 diseases or defects classified as follows :—

Diseases of the digestive system	....	....	....	48
Diseases of the respiratory system	....	....	....	74
Diseases of nutrition—				
Rickets	....	....	....	91
Other disorders of nutrition	....	....	....	14
			—	105
Diseases of the skin	....	....	....	49
Diseases of the nervous system	....	....	....	6
Diseases of the eye	....	....	....	20
Diseases of the ear, nose, and throat	....	....	....	51
Congenital defects	....	....	....	54
Surgical conditions	....	....	....	15

## Infectious diseases—

Whooping Cough	....	....	....	1	
T.B. Peritonitis	....	....	....	1	
				—	2
Various	....	....	....	....	16
					<hr/>
					440
					<hr/>

*Special Information with regard to Rickets.*

20 children under one year showed clinical signs of commencing rickets.

All those cases were between the ages of 6 and 12 months ; and the particulars of feeding are as follows :—

7 were entirely breast fed.

5 had been breast fed for the first three months.

6 had been fed on fresh cow's milk.

1 had been fed for a short time on condensed milk, then on cow's.

1 had been fed on dried milk at first and later on cow's.

Of the 205 children admitted between the ages of 1 and 5 years, 91 (43·3%) showed some signs of clinical rickets on admission.

The ages of these children on admission were as follows :—

1-2 years .... 50 out of a total of 105.

2-3 years .... 27 out of a total of 61.

3-4 years .... 10 out of a total of 28.

4-5 years .... 3 out of a total of 10.

Over 5 years .... 1 out of a total of 1.

Enquiries as to the feeding on the first year of life elicited the following information :—

Breast fed for less than one year	....	36 out of a total of 79
Breast fed for over one year	....	17 out of a total of 34
Partly breast fed (for a few months only)		14 out of a total of 35
Mixed feeding	....	0 out of a total of 1
Fresh cow's milk	....	13 out of a total of 28
Artificial food	....	11 out of a total of 28



## Special Treatment Centres.

## A. Dental Clinic—

REPORT BY DR. H. GORDON CAMPBELL, L.R.C.P. &amp; S.E., L.D.S.

## (a) Number of attendances :—

(1) Mothers ....	....	....	....	....	255
(2) Children ....	....	....	....	....	92
					<hr/>
					347

## (b) Classified summary of conditions recorded on admission :—

## (1) Mothers—(122)

Dental Caries, 97 ; Alveolar Abscess, 4 ; Septic Roots, 7 ; Periodontitis, 2 ; Gingivitis, 6 ; Pyorrhoea, 1 ; Tartar, 1 ; Dental Caries with impacted tooth, 1 ; Sore on Tongue, 1 ; Painful Denture eased, 1 ; No Diagnosis (left before examination), 1.

## (2) Children—(59)

Dental Caries, 30 ; Dental Caries and Erupting Tooth, 1 ; Dental Caries and Tartar, 1 ; Dental Caries and Deposit on Teeth, 1 ; Dental Caries and Tooth piercing the Gum, 1 ; Alveolar Abscess, 19 ; Gingivitis, 1 ; Periodontitis, 1 ; Tartar, 1 ; Secondary Dentine, 2 ; Fractured Tooth, 1.

(c) Number of Dentures supplied	....	....	....	11
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(d) Gross Cost of Dentures supplied	....	....	£22 10 0
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Sums recovered from patients	....	....	£18 10 0
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## (e) Classified summary of treatment carried out :—

Advice, 25 ; Extractions (temporary), 14 ; (permanent) 343 ; Fillings (temporary), 15 ; (permanent) 55 ; Treatment of Alveolar Abscess, 25 ; Sealings, 40 ; Dressings, 91 ; Aconite and Iodine Treatment, 29 ; Special Gum Treatment, 15 ; Impressions for Dentures, 11 ; Repairs to Dentures, 12 ; X-Ray Plate, 1.

## B. V.D. Clinic—

REPORT BY DR. DORA W. GERRARD, M.B., CH.B., D.P.H.

## Classified summary of conditions :—

NEW CASES.						
		Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total
Babies	....	—	1	—	40	41
Children	....	—	1	—	7	8
Mothers, A.N.	....	—	3	—	7	10
P.N.	....	2	5	1	19	27
		2	10	1	73	86

## Classified according to age and sex :—

MALES.						
		Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Under 1 year	....	—	—	—	21	21
1-5 years	....	—	—	—	5	5
		—	—	—	26	26

FEMALES.						
		Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Under 1 year	....	—	1	—	19	20
1-5 years	....	—	1	—	2	3
5-15 years	....	—	—	—	—	—
15-25 years	....	1	1	1	5	8
25 years and over		1	7	—	21	29
		2	10	1	47	60

## Number of attendances :—

		Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Babies	....	6	2	—	119	127
Children	....	4	49	—	27	80
Mothers, A.N.	....	3	62	—	85	150
P.N.	....	40	278	34	125	477
		53	391	34	356	834

## Number of Injections given—Intravenous and Intramuscular :—

Neokharsivan	....	....	....	....	26
Kharsulphan	....	....	....	....	0
Bismuth	....	....	....	....	32
Thiostat	....	....	....	....	64
					<hr/> 58

## Number of specimens sent for examination :—

Wassermann Tests	....	....	....	64
Gonococcal Complement Fixation Tests	....	....	....	2
Smears	....	....	....	64

## C. Ultra-Violet Light Clinic—

## (a) Number of attendances :—

Babies	....	....	....	1,104
Children	....	....	....	4,103
				<hr/> 5,207

## (b) Number of cases :—

Babies—New cases	....	....	73
Re-admissions	....	....	1
Attending from 1930	....	....	9
			<hr/> 83
Children—New cases	....	....	207
Re-admissions	....	....	3
Attending from 1930	....	....	34
			<hr/> 244

## (c) Summary of conditions treated and results obtained :—

## (1) Babies—83 cases.

			Marked Imp.	Slight Imp.	No Imp.	Did not Attend.	Still Attending.	Total.
Not thriving	....	....	6	2	—	6	1	15
Debility	....	....	4	6	—	2	—	12
Marasmus	....	....	—	1	—	2	1	4
Anaemia	....	....	1	—	—	—	—	1
Ineipient Rickets	....	....	5	5	—	5	3	18
Rickets	....	....	6	11	1	8	6	32
Rickets and Marasmus	....	....	—	—	—	1	—	1
			<hr/> 22	<hr/> 25	<hr/> 1	<hr/> 24	<hr/> 11	<hr/> 83

## (2) Children—244 cases.

			Marked Imp.	Slight Imp.	No Imp.	Did not Attend.	Still Attending.	Total.
Not thriving	....	....	4	8	—	5	2	19
Debility	....	....	16	17	—	16	13	62
Marasmus	....	....	—	1	—	3	—	4
Anaemia	....	....	—	—	—	1	1	2
Incipient Rickets	....	....	3	3	—	1	1	8
Slight Rickets	....	....	1	2	—	7	3	13
Rickets	....	....	13	33	5	37	23	111
Rickets and Marasmus	....	....	—	—	—	1	1	2
Bronehitis	....	....	2	2	—	3	1	8
Fibrosis after Pneumonia	....	....	—	—	—	1	—	1
Paralytic conditions	....	....	—	1	—	—	2	3
Congenital Heart	....	....	—	—	—	1	—	1
Erythroderma	....	....	—	—	—	1	—	1
Oedema of faee	....	....	—	—	—	1	—	1
Nervous conditions	....	....	—	2	1	4	—	7
Mastoid sinuses	...	....	—	1	—	—	—	1
			39	70	6	82	47	244

## Day Nurseries.

## (a) Number of attendanees :—

(1) Under 1 year of age	....	....	....	1,796
(2) Over 1 year of age	....	....	....	9,592

## (b) Charges made :—

4s. 6d. for 5½ day week for each child, with a reduction of 1s. in the case of 2 members of one family, and of 2s. a week if 3 members of the same family are attending at the same time.

## Food and Milk.

## Number of applications made for food or milk :—

Total applications	....	....	....	322
Applications granted	....	....	....	141
Applications disallowed	....	....	....	181

## Number of cases who received free food or milk :—

(1) Mothers	....	....	....	14
(2) Children	....	....	....	266
				—
				280

All these cases were certified on medical grounds as requiring extra food or milk and all were in necessitous circumstances.

Gross Cost	....	....	....	....	£618 0 0
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#### Milk Substitutes :—

Sold at cost price at the clinics—Ostermilk, 852 tins ; Allen & Hanbury's, 6 tins ; Bengers, 2 tins.

Total, 860	....	....	£68 12 2
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#### Measles.

(a) Number of cases intimated to the Public Health Department	....	....	....	....	383
(b) Number of deaths	....	....	....	....	14
(c) Number of cases removed to hospital	....	....	....	....	92
(d) Number of special domiciliary visits	....	....	....	....	884

#### Whooping Cough.

(a) Number of cases intimated	....	....	....	....	840
(b) Number of deaths	....	....	....	....	44
(c) Number of cases removed to hospital	....	....	....	....	112
(d) Number of special domiciliary visits	....	....	....	....	2,046

#### Ophthalmia Neonatorum.

(a) Number of cases notified :—					
(1) By doctor	....	....	....	....	23
(2) By midwife	....	....	....	....	14
(3) By institution	....	....	....	....	11
4 by doctor and midwife.					
(b) Number of cases in which infection is gonococcal (if known), 4 positive, 11 suspicious.					
(c) Number treated in residential institutions	....	....	....	....	10
(d) Number of cases in which there was appreciable loss of vision	....	....	....	....	—

#### Educational.

In addition to the usual lectures given to the probationers at the Day Nurseries, in preparation for the examination for the Certificate of the National Society of Day Nurseries, opportunity was given to the midwives to attend the lectures in connection with the College of Nursing this year.

Under the auspices of the Dundee Dental Hygiene Association a lecture on Dental Hygiene was given to the mothers by Dr. Gordon Campbell which was well attended.



Weekly Sewing Classes were held in connection with two of the Clinics and were well attended.

### **Dundee Voluntary Health Workers' Association.**

During the year 680 garments were supplied to the Clinics by the members of the Association. Of these, 206 were sold at cost price, 40 at half cost price, 365 at quarter cost price, and 69 were given free on the recommendation of the Medical Officer.

During the year 884 knitted and sewn garments were made for the Clinics and 411 were provided for the Day Nurseries.

The following Voluntary Institutions are also associated with the Scheme and receive an annual grant from the Dundee Town Council :—

#### *Salvation Army Home.*

Report of the Florence Booth Maternity Home, Clement Park, Lochee.

Number of non-paying cases in the Home on January				
1st, 1931	....	....	....	18
Number of non-paying cases admitted during 1931	....			40
Number of cases confined in the Home during 1931	....			32
Number of days in the Home during 1931	....			8,259

#### *Lochee Day Nursery.*

New cases admitted in 1931 :—

Under 1 year of age	....	....	....	5
Over 1 year of age	....	....	....	21
				—
				26

Total attendances :—

Under 1 year of age	....	....	....	51
Over 1 year of age	....	....	....	1,007
				—
				1,058

On account of the want of work in Lochee the Nursery was closed on October 31st.

#### *Nursery School.*

Number of children admitted in 1931	....	....	....	27
Re-admitted from 1930	....	....	....	17
Average number in the Roll	....	....	....	21
Total number of attendances in 1931	....	....	....	3,590

**Public Health (Notification of Puerperal Fever and Puerperal Pyrexia)  
Regulations (Scotland), 1929.**

(1) Total number of cases of (a) Puerperal Fever	....	....	20
Total number of cases of (b) Puerperal Pyrexia	....	....	39
(2) Total number of cases removed to Infectious Diseases Hospital :—			
(a) Puerperal Fever :—			
King's Cross Hospital	....	....	18
Dundee Royal Infirmary	....	....	1
(b) Puerperal Pyrexia :—			
King's Cross Hospital	....	....	19
Dundee Royal Infirmary	....	....	4
(3) Total number of deaths	....	....	* 9
(4) Number of cases of (a) Puerperal Fever following instru- mental delivery	....	....	7
Number of cases of (b) Puerperal Pyrexia following instru- mental delivery	....	....	2
(5) Number of deaths occurring in cases included under (4) :—			
(a) Puerperal Fever	....	....	1
(b) Puerperal Pyrexia	....	....	1
(6) Number of cases of Puerperal Fever and Puerperal Pyrexia where the Local Authority provided Assistance on the request of Medical Practitioners for :—			
(i) Consultant Service	....	....	5
(ii) Bacteriological Examinations	....	....	—
(iii) Skilled Nursing at Home	....	....	2
(iv) Hospital Treatment	....	....	52
(7) Notifications were sent promptly and in the majority of cases the opportunity of removal to Hospital for treatment was taken advantage of immediately.			

\* 7 of these cases had been notified as Puerperal Pyrexia, but the final cause of death was given as follows :—

Puerperal Sepsis	....	....	5 cases
Broncho Pneumonia	....	....	1 case
Laryngeal and Pulmonary Tuberculosis	....	....	1 case

## Health Visitors' Work.

	Infants.		Age 1-5.		Over 5 years.	
	1st visit.	Re-visits.	1st visit.	Re-visits.	1st visit.	Re-visits.
<i>Infectious Disease.</i>						
Measles ....	23	43	152	305	128	223
Whooping Cough ....	64	132	305	598	314	633
Chicken-pox ....	23	47	160	380	227	830
Mumps ....	1	1	5	10	19	19
Erysipelas ....	2	—	1	4	2	2
Pneumonia ....	32	17	163	93	231	137
Typhoid Fever ....	—	—	2	1	1	2
Scarlet Fever ....	1	2	35	160	54	208
Diphtheria ....	2	11	41	182	70	372
Cerebro-Spinal Fever ....	—	—	6	—	—	—
Total ....	....	....	6,476			

*Homes visited for Infectious Disease.*

Measles ....	741	Scarlet Fever ....	429
Whooping Cough ....	1,543	Diphtheria ....	617
Chicken-pox ....	1,241	Cerebro-Spinal Fever ....	6
Mumps ....	48	Pneumonia ....	645
Erysipelas ....	10	Typhoid Fever ....	5
Total ....	....	5,285	

*Pre-School and School Children.*

## Cases Visited :—

Dirty and Neglected ....	123
Verminous ....	618

## Visits :—re Defective conditions noted in Schools, Clinics, etc.—

Age 1-5 (1st visits) ....	207
Over 5 (1st visits) ....	1,597
Revisits ....	16,993

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Total ....	19,538
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Visits to Schools ....	1,205
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*Homes visited, re Pre-School and School Children.*

Dirty and Neglected ....	113
Verminous ....	390
Special Visits ....	1,766
Other Visits ....	11,345

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Total ....	13,614
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*Tuberculosis.*

Visits—1st Visits	....	....	....	....	315
Revisits	....	....	....	....	3,122
					<hr/>
		Total	....	....	3,437
					<hr/>
Homes Visited	....	....	....	....	3,358

*Total Visits by Health Visitors.*

Infectious Disease	....	....	....	....	6,476
Pre-School and School	....	....	....	....	19,538
Tuberculosis	....	....	....	....	3,437
Visits to Schools	....	....	....	....	1,205
		Total	....	....	30,656
					<hr/>

**Health Visitors' Work (Maternity Services Only).**

Total number of homes visited, 3,222.

Total number of visits to these homes, 15,283.

Average number of visits per home, 4·7.

Total number of cases visited, 15,427.

		1st visits.	Revisits.	Total.
(a) Ordinary :—				
Babies	....	3,190	11,685	14,875
Mothers—A.N.	....	1	—	1
P.N.	....	4	3	7
(b) Special Visits	....	1	2	3
Ophthalmia Neonatorum	....	51	469	520
Puerperal Pyrexia	....	8	2	10
Puerperal Sepsis	....	6	1	7
Maternal Deaths	....	4	—	4

Of the 3,190 infants visited for the first time :—

174 were premature.

3,016 were full-time births.

**Housing.**

Of the 3,147 homes of the newly born visited for the first time the home conditions were as follows :—

306 very good.

1,569 good.

1,134 medium.

138 bad.

Information regarding feeding of 3,190 infants visited for the first time :—

(a) Breast	....	....	....	....	2,579
(b) Partly breast	....	....	....	....	153
(c) Mixed Feeding	....	....	....	....	40
(d) Artificial	....	....	....	....	162
(e) Stillborn	....	....	....	....	175
(f) Dead at first visit	....	....	....	....	81
					<hr/> 3,190

Special information as to the feeding of infants for the first six months of life was obtained in 1,995 cases :—

(a) Breast	....	....	....	....	1,074
(b) Partly breast	....	....	....	....	223
(c) Mixed feeding	....	....	....	....	148
(d) Artificial	....	....	....	....	550
					<hr/> 1,995

### Infant Death Statistics, 1931.

317 deaths of children under one year were noted by the Child Welfare Department, distributed as follows :—

1st week	2nd week	3rd week	4th week	1-3 months	3-6 months	6-9 months	9-12 months	Total.
88	11	10	15	51	58	46	38	317

Of these, 107 were breast fed.

34 were partly breast fed.

16 were mixed feeding (breast and artificial feeding).

80 were artificially fed.

In 53 cases feeding was not commenced due to prematurity.

25 cases were not visited.

2 cases no particulars were obtained.

Regarding the feeding, the age at which those infants died were as follows :—

	1st mth.	2nd mth.	3rd mth.	4th mth.	5th mth.	6th mth.	7th mth.	8th mth.	9-12 mths.	Total.	Feeding not commenced.	N.V.	N.P.
Breast	41	19	7	7	3	4	7	1	18	107			
Partly Breast	2	4	4	1	4	4	3	3	9	34			
Mixed	3	0	1	5	1	1	1	0	4	16			
Artificial	10	7	6	7	7	10	4	4	25	80			
<hr/>													
	56	30	18	20	15	19	15	8	56	237	25	2	53



### Housing.

In the 290 deaths in which particulars were obtained :—

- 79 occurred in houses of one room, in which there were 307 occupants.
- 178 occurred in houses of two rooms, in which there were 908 occupants.
- 27 occurred in houses of three rooms, in which there were 152 occupants.
- 4 occurred in houses of four rooms, in which there were 28 occupants.
- 2 occurred in lodgings.

### Family History.

(a) The family history showed that in these families 634 children were still alive, but 490 had died, and of these, no fewer than 419 died in the first year of life.

(b) In 290 cases in which particulars were obtained, 90 mothers were engaged in work outside their own homes and 200 were not thus engaged.

In 9 cases the mother left work one week or under before confinement.

In 0 cases the mother left work two weeks before confinement.

In 1 case the mother left work three weeks before confinement.

In 1 case the mother left work four weeks before confinement.

28 children who died were illegitimate.

19 children who died were twin births.

3 children who died were triplet births.

67 deaths were due to prematurity.

In addition to deaths of infants under 1 year of age, 117 deaths of children from 1-5 years of age were noted by the Department.

### Deaths from Diarrhoea.

Special inquiry into deaths due to diarrhoea :—

28 deaths occurred from diarrhoea during 1931 :—

10 were breast fed.

4 were partly breast fed

1 was mixed feeding (breast and other food).

11 were artificially fed.

2 cases were not visited.

	1st mth.	2nd mth.	3rd mth.	4th mth.	5th mth.	6th mth.	7th mth.	8th mth.	9-12. mths.	Total.	N.V.
Breast ....	3	4	1	0	0	0	1	0	1	10	
Partly Breast ....	0	0	0	0	1	2	0	0	1	4	
Mixed ....	0	0	0	1	0	0	0	0	0	1	
Artificial ....	1	1	1	1	0	2	0	2	3	11	
Totals ....	4	5	2	2	1	4	1	2	5	26	2

### Family History.

The family history showed that in these families :—

66 were still alive.

42 had died, and no fewer than 36 had died in the first year of life.

7 mothers had worked during pregnancy and 18 were not engaged in outside employment.

### Housing.

Of the 26 deaths from diarrhoea in which particulars were obtained :—

10 occurred in houses of one room, in which there were 38 occupants.

12 occurred in houses of two rooms, in which there were 70 occupants.

3 occurred in houses of three rooms, in which there were 23 occupants.

1 occurred in a house of four rooms, in which there were 13 occupants.

### Particulars of Births Notified and Registered in Dundee during 1931.

Number of births taken from Registrars' Weekly Returns

(includes transfers out and also transfers in) .... 3,588

Difference between Notification and Registration (1930-31  
and 1931-32) .... 8

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3,596

Less number transferred into Dundee .... 30

(1) Number of Live Births occurring in Dundee .... 3,566

Number of Stillbirths .... 202

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(2) Total number of Births occurring in Dundee .... 3,768

(3) Number of Births notified in accordance with the Act—  
i.e. 96 per cent. of total number of births (3,768) .... 3,553

(4) Number of Live Births notified—i.e. 93·9 per cent. of  
live births (3,566) .... 3,351

## Classification of Notifications.

By whom Notified.	Notified.	Unnotified.	Total.	Total cases attended.	Percentage of total births.
Doctors ....	411	160	571	694	18·5%
Doctor and Midwife ....	205	—	205	205	5·4%
Midwives ....	1,152	5	1,157	1,157	30·6%
Mat. Ward D.R.I. ....	1,527	19	1,546	1,546	41·3%
Maryfield Hospital ....	32	1	33	33	0·8%
Parents ....	60	—	60	—	—
Other Sources ....	63	—	63	—	—
Out of Town ....	—	30	30	—	—
S.A.H. ....	103	—	103	103	2·7%
Found Dead ....	—	—	—	—	—
	<u>3,553</u>	<u>215</u>	<u>3,768</u>	<u>3,738</u>	

## PRE-SCHOOL AND SCHOOL MEDICAL SERVICES.

REPORT BY DR. A. E. KIDD,  
Chief School Medical Officer.

DUNDEE, *August* 1932.

I have the honour to submit for information a report on the work of the Medical Department (School Services) for the year ending 31st July 1932.

Number of schools under inspection	....	....	....	42
Average number of children on roll for the past session	....	....	....	29,024
Percentage of average attendance for the whole year	....	....	....	86·57

### Summary of Year's Work.

Attendance at Treatment Clinic	....	....	....	63,870
Examinations for Attendance Certificates	....	....	....	22,214
Routine Examinations in Schools	....	....	....	7,908
Special Examinations in Schools	....	....	....	4,382
Nurses' Visits to Schools	....	....	....	1,837
Doctors' Visits to Schools	....	....	....	429
Attendance at Cleansing Station	....	....	....	4,494
Cases inspected before Exemption granted	....	....	....	21
Children inspected before going to Holiday Home	....	....	....	1,118

### Number of Visits to Schools.

Nurses	....	....	....	....	1,837
Doctors	....	....	....	....	429

### Organisation and Administration.

During the past year no change has been made in the working of the combined Services Scheme as detailed on pages 158-160 of the Annual Report of the Public Health Department for 1930.

There has now been a complete year of the new working and the following figures are available, showing the number of visits paid by the Health Visitors among Pre-School and School Children.

Visits for :—

Infectious Disease	....	....	....	10,750
Dirty, Neglected, and Verminous children				929

Special Visits to children found defective :—

Age 1-5	....	....	....	516
Over 5	....	....	....	2,303
Revisits	....	....	....	26,052
Total				<u>40,550</u>

29,936 homes were visited and 1,837 visits were paid to schools.

### “ Following Up.”

As the Health Visitors become acquainted with their districts, the uses of “ following up ” are much more apparent and the results are very much better than under the old system.

There cannot be any doubt of the fact that the new system whereby each Health Visitor has her own district and makes all the required visits to each home, no matter what may be the trouble, is a great advance of any system which permitted overlapping.

There has already been developed a sense of proprietorship on both sides which is reacting in no small degree for the benefit of the children.

### Supervision of Infectious Disease.

During the past session there have been a large number of cases of Measles, the schools in the east end of the City suffering to a greater extent than those in the other districts.

February saw the commencement of the outbreak, which rose to its climax in May, when 529 cases were reported.

During the months of March, April, and May the number of cases reported was so great that it was impossible to keep the issue of certificates up to date. Verification of notification on the part of unqualified persons is necessary and takes time, while a wrong address, parents at work or out, all add to the difficulties of the Health Visitor and are the cause of much evening visiting.

Every endeavour has been made to keep the issue of attendance certificates up to date, but with the present staff during an epidemic it is impossible, unless some other part of the work is discontinued.



The number of certificates issued during the session for exclusion from school was 2,931.

### Cleansing Station.

During the past session there has been an attendance of 4,494 at this institution. It is gratifying to report that many cases now come of their own accord for cleansing, having had the misfortune to become infected.

Arrangements now exist whereby the whole family may be cleansed and have their clothing disinfected, and this scheme, associated with that whereby the bedding and the house may also be cleansed and disinfected, provides a means of stopping at once the spread of infection.

To cleanse a child and send it back to an infected house will only temporise, not cure the condition.

### Presence of Parents at Inspection.

Number of parents present at inspection	....	....	4,743
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### Physical Condition of School Children.

Total number of children examined :—

#### (1) *Routine Examinations.*

Boys ....	....	....	3,922
Girls ....	....	....	3,986
Boys and Girls	....	....	7,908

#### (2) *Special Examinations.*

Heads—Vermin	....	....	50
Nits	....	....	169
Other conditions	....	....	41
Body—Vermin	....	....	34
Other conditions	....	....	74
Enlarged Tonsils	....	....	183
Defective Vision	....	....	423
Disease of Eyes	....	....	119
Disease of Ears	....	....	57
Other diseases	....	....	3,232

Total	....	....	<u>4,382</u>
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**Clothing.**

	Boys.	%	Girls.	%	Boys and Girls.	%
Number examined ....	3,922	—	3,986	—	7,908	—
Satisfactory ....	3,909	99	3,970	99	7,879	99
Unsatisfactory ....	13	—	16	—	29	—
In need of repair ....	89	2	49	1	138	2
Clothing clean ....	3,855	98	3,943	99	7,798	99
Clothing dirty ....	67	2	43	1	110	1

**Footgear.**

Number examined ....	3,922	—	3,986	—	7,908	—
Satisfactory ....	3,886	99	3,961	99	7,847	99
Unsatisfactory ....	27	—	23	—	50	—
Barefoot ....	9	—	2	—	11	—

**Cleanliness of Head.**

Number examined ....	3,922	—	3,986	—	7,908	—
Vermin ....	27	—	46	1	73	1
Nits ....	99	2	463	12	562	7
Clean ....	3,892	99	3,951	99	7,843	99

	Percentage for 1922.	Percentage for 1927.
Boys and Girls—Vermin ....	4	2
Nits ....	17	13

**Cleanliness of Body.**

Number examined ....	3,922	—	3,986	—	7,908	—
Vermin ....	21	—	10	—	31	—
Vermin marked ....	172	4	63	2	235	3
Clean ....	3,874	99	3,959	99	7,833	99

	Percentage for 1922.	Percentage for 1927.
Boys and Girls—Vermin ....	2	1
Vermin marked ....	8	7

**Condition of Skin.**

Number examined ....	3,922	—	3,986	—	7,908	—
Head—						
Ringworm ....	2	—	2	—	4	—
Impetigo ....	63	2	60	2	123	2
Favus ....	1	—	1	—	2	—
Other diseases ....	32	1	30	1	62	1

## Body—

		Boys.	%	Girls.	%	Boys and Girls.	%
Ringworm ....	....	3	—	2	—	5	—
Impetigo ....	....	72	2	50	1	122	2
Seabies ....	....	9	—	16	—	25	—
Other diseases	....	40	1	50	1	90	1

## Nutrition.

Number examined	....	3,922	—	3,986	—	7,908	—
Above average	....	1,090	27	1,080	27	2,170	27
Average	....	2,585	66	2,621	66	5,206	66
Below average	....	236	7	270	7	506	6
Very bad •	....	11	—	15	—	26	—

## Boys and Girls—

## Percentages for session—

		Above average.	Average.	Below average.
1929-1930	....	33	63	4
1930-1931	....	29	66	5
1931-1932	....	27	66	7

These figures are significant.

## Teeth.

Number examined	....	3,922	—	3,986	—	7,908	—
Perfect	....	223	6	226	6	449	6
Sound	....	613	16	625	16	1,238	16
1-4 decayed	....	2,140	54	2,236	56	4,376	55
5 or more decayed	....	946	24	899	22	1,845	23
Oral sepsis	....	192	5	204	5	396	5

## Nose and Throat.

Number examined	....	3,922	—	3,986	—	7,908	—
Nose—							
Catarrh	....	272	7	245	6	517	6
Obstruction	....	33	1	19	—	52	—
Other diseases	....	11	—	13	—	24	—

## Throat—

## (a) Tonsils—

Slightly enlarged	624	16	608	15	1,232	16
Much enlarged	202	5	193	5	395	5

## (b) Adenoids—

	Boys.	%	Girls.	%	Boys and Girls.	%
Probably present	184	5	157	4	341	4
Present ....	58	2	40	1	98	1
Other diseases ....	17	—	33	1	50	—

## (c) Glands—

## Submaxillary—

Enlarged ....	571	15	498	13	1,069	14
Much enlarged ....	10	—	5	—	15	—
Suppurating ....	1	—	1	—	2	—
Cicatrices ....	23	—	29	—	52	—

## Cervical—

Enlarged ....	240	6	245	6	485	6
Much enlarged ....	11	—	13	—	24	—
Suppurating ....	—	—	2	—	2	—
Cicatrices ....	23	—	34	1	57	—

(d) Mouth breathers ....	97	2	155	4	378	5
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## Boys and Girls—

## Tonsils—

			% for 1922.	% for 1927.
Slight ....	....	....	16	17
Much enlarged ....	....	....	3	5

## Adenoids—

Present ....	....	....	13	4
Probably present ....	....	....	5	1

## Enlarged Glands—

Submaxillary ....	....	....	—	13
Cervical ....	....	....	—	6

## External Eye Disease.

Number examined ....	3,922	—	3,986	—	7,908	—
Strabismus ....	97	2	118	3	215	3
Nystagmus ....	—	—	—	—	—	—
Blepharitis ....	116	3	102	2	218	3
Conjunctivitis ....	111	3	107	2	218	3
Corneal Nebulae ....	14	—	6	—	20	—
Corneal Ulcer ....	3	—	2	—	5	—
Other diseases ....	16	—	16	—	32	—

## Boys and Girls—

			for 1922.	% for 1927.
Strabismus ....	....	....	3	4
Blepharitis ....	....	....	2	3
Conjunctivitis ....	....	....	—	2

**Visual Acuity.**

6/6 indicates that at a distance of 20 feet a child can see letters  
6/16 inch in size.

6/9 letters 8/16 „ „ „

6/12 „ 11/16 „ „ „

6/18 „ 17/16 „ „ „

		Boys.	%	Girls.	%	Boys and Girls.	%
Number examined	....	2,672	—	2,700	—	5,372	—
6/6 ....	....	2,120	79	2,068	77	4,188	78
6/9-6/12 ....	....	365	14	412	15	777	14
6/18 or worse	....	187	7	220	8	407	8

**Boys and Girls—**

				% for 1922.	% for 1927.
6/6 ....	....	....	....	64	75
6/9-6/12 ....	....	....	....	25	16
6/18 or worse	....	....	....	11	8

**Ears.**

Number examined	....	3,922	—	3,986	—	7,908	—
Otorrhoea ....	....	54	2	28	—	82	1
Wax ....	....	163	4	140	4	303	4
Other diseases	....	4	—	7	—	11	—

**Hearing.**

Number examined	....	3,922	—	3,986	—	7,908	—
Somewhat deaf	....	46	1	25	—	71	1
Markedly deaf	....	2	—	2	—	4	—

**Speech.**

Number examined	....	3,922	—	3,986	—	7,908	—
Defective articulation	....	50	1	31	—	81	1
Stammer ....	....	22	—	8	—	30	—

**Retarded Condition.**

Number examined	....	3,922	—	3,986	—	7,908	—
“ Retarded ” ....	....	19	—	14	—	33	—

**Heart and Circulation.**

Number examined	....	3,922	—	3,986	—	7,908	—
Organic—							
Congenital ....	....	2	—	5	—	7	—
Acquired ....	....	16	—	24	—	40	—
Functional ....	....	33	1	38	1	71	1
Anaemia ....	....	251	6	271	7	522	7



## Boys and Girls—

				% for 1922.	% for 1927.
Anaemia	....	....	....	8	5

## Lungs.

		Boys.	%	Girls.	%	Boys and Girls.	%
Number examined	....	3,922	—	3,986	—	7,908	—
Bronchitis	....	121	3	132	3	253	3
Tuberculosis	....	—	—	—	—	—	—
? Tuberculosis	....	22	—	17	—	39	—

## Nervous System.

Number examined	....	3,922	—	3,986	—	7,908	—
Epilepsy	....	—	—	3	—	3	—
Chorea	....	3	—	5	—	8	—
Infantile Paralysis	....	8	—	7	—	15	—
Other diseases	....	2	—	2	—	4	—

## Tuberculosis (Non-Pulmonary).

Number examined	....	3,922	—	3,986	—	7,908	—
Glandular	....	6	—	9	—	15	—
Bones and Joints	....	1	—	—	—	1	—
Abdominal	....	3	—	4	—	7	—
Skin	....	2	—	2	—	4	—
Other forms	....	—	—	—	—	—	—

## Deformities.

Number examined	....	3,922	—	3,986	—	7,908	—
Bow Leg	....	34	1	16	—	50	—
Knock Knee	....	24	—	16	—	40	—
Cleft Palate	....	4	—	4	—	8	—
Spinal Curvature	....	8	—	19	—	27	—
Rickety Chest	....	106	3	53	2	159	2
Wry Neck	....	19	—	2	—	21	—
Club Foot	....	3	—	3	—	6	—
Congenital	....	2	—	4	—	6	—
Acquired (non-rachitic)	....	8	—	5	—	13	—

## Rickets.

Number examined	....	3,922	—	3,986	—	7,908	—
Slight	....	141	4	89	2	230	3
Marked	....	45	1	24	—	69	1

## Boys and Girls—

				% for 1922.	% for 1927.
Slight	....	....	....	3	4
Marked	....	....	....	—	1

		Boys.	%	Girls.	%	Boys and Girls.	%
Other Diseases	....	21	—	24	—	45	—

**Result.**

Number examined	....	3,922	—	3,986	—	7,908	—
Fit	....	3,503	89	3,598	90	7,101	90
Defective (excluding verminous cases)	....	419	11	388	10	807	10

## Boys and Girls—

				% for 1922.	% for 1927.
Fit	....	....	....	90	88
Defective	....	....	....	10	12

**Special Schools and Classes.**(1) *Fairmuir Special School.*

## Physically Defective Children—

			Boys.	Girls.
On roll, July 1931	....	....	114	98
Admitted	....	....	48	36
Left	....	....	36	24
On roll, July 1932	....	....	126	110

(2) *Fairmuir Special School.*

## “ Retarded ” Children—

On roll, July 1931	....	....	61	40
Admitted	....	....	14	8
Left	....	....	9	8
On roll, July 1932	....	....	66	40

(3) *Blind Institution School.*

## Blind and Partially Blind Children.

## “ Educationally ” Blind—

On roll, July 1931	....	....	16	18
Admitted	....	....	9	2
Left	....	....	2	5
On roll, July 1932	....	....	23	15

## Other Cases—

			Boys.	Girls.
On roll, July 1931	....	....	16	13
Admitted	....	....	2	—
Left	....	....	2	4
On roll, July 1932	....	....	16	9

(4) *Deaf and Deaf Mute Children.*

## Dudhope Terrace School—

On roll, July 1931	....	....	36	21
Admitted	....	....	8	4
Left	....	....	3	1
On roll, July 1932	....	....	41	24

(5) *Sidlaw School, Auchterhouse Sanatorium.*

## Children undergoing Sanatorium Treatment—

On roll, July 1931	....	....	12	12
Admitted	....	....	31	35
Left	....	....	30	35
On roll, July 1932	....	....	13	12

**Arrangements for Physical Training.**

(a) Physical Exercises.

(b) Swimming.

(c) Practical Instruction in Personal Hygiene.

During the past session continued attention has been paid to these necessary branches of education by the Superintendent of Physical Training and his courteous staff. The possibility of using Mayfield Park and Graham Street Park has permitted of giving the senior classes in all primary schools in the east end of the city one day a week for outdoor games practice and activity work, and the extension of this privilege to other areas of the city is much to be desired.

The care and attention bestowed to special cases reported to any member of the Physical Training staff has again been a marked feature of the co-operation between the Physical Training and Medical Departments. Particular and personal care is given to all such cases and special exercises are devised for the remedying of any postural or other defect.

During the past session, by the courtesy of the Dental Board of the United Kingdom, we were privileged to have a three weeks' visit of the travelling exhibition arranged by this Board. Demonstrations were given in three schools to advanced division pupils upon such

subjects as the care of the teeth, mastication, the growth and structure of the teeth, diet, etc.

These demonstrations were illustrated by models, which the pupils were enabled to handle, and as the classes were small a considerable amount of personal instruction was possible. The ladies who carried out these demonstrations were happily chosen in that they had an excellent way with children and were able to retain their attention right through the series.

These demonstrations might well be repeated in other schools, and the thanks of the pupils who were privileged to attend the demonstrations are due to the Dental Board and the ladies who so tactfully carried out the work.

### Arrangements for Medical Treatment.

#### *Summary of Attendances at Treatment Clinics.*

##### *Castle Street—*

Dental	....	....	....	....	3,894
Skin and X-Ray	....	....	....	....	13,703
Ear, Nose, and Throat		....	....	....	9,181
Eye ....	....	....	....	....	23,526
Orthopaedic	....	....	....	....	65
General	....	....	....	....	13,539
Total Attendances					63,908

Total number of children who have attended Castle Street Clinic :—

(a) Off school	....	....	....	....	3,706
(b) Attending school	....	....	....	....	5,018
					8,724

Average attendance per child (in days)	....	....	8
Average daily attendance	....	....	237

##### *Broughty Ferry—*

Eyes	....	....	....	....	79
Ears	....	....	....	....	28
General	....	....	....	....	363
					470

Cases sent by Headmasters	....	....	152
Return cases	....	....	294
			<hr/> 446

*Lochee—*

Eyes	....	....	....	....	2,122
Ears	....	....	....	....	1,055
General	....	....	....	....	4,134
					<hr/> 7,311

Cases sent by Headmasters	....	....	1,067
Return cases	....	....	1,297
			<hr/> 2,364

*Isles' Lane—**Since February—*

Eyes	....	....	....	....	248
Ears	....	....	....	....	206
General	....	....	....	....	1,102
					<hr/> 1,556

Cases sent by Headmasters	...	....	157
Return cases	....	....	112
			<hr/> 269

**Summary of Attendance Certificates granted at Clinics.**

Total number of Certificates issued	....	....	....	19,465
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## (a) Unfit to attend school—

		Four Weeks.	Three Weeks.	Two Weeks.	One Weeks.
Clinic cases	....	0	2	199	3,505
Non-clinic cases	....	141	153	1,272	3,555

Total Clinic cases	....	....	3,706
Total Non-clinic cases	....	....	5,121

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8,827

## (b) Fit to attend school—

Clinic cases	....	....	5,018
Non-clinic cases	....	....	5,620

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10,638

Total	....	....	19,465
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## DENTIST'S REPORT, 1931-1932.

Sir,

I beg to submit my Eighth Annual Report for the session ending June 1932 under the following heads :—

- (a) Routine Inspection at Schools of children aged 6-8 years.
- (b) Treatment at the School Clinic.

### Routine Inspection at Schools.

During the past session I inspected 1,820 children of the age group 6-8 years belonging to the following schools :—Cleington, Cowgate, St. Andrew's, Tay Street, St. Joseph's, Brown Street, Balfour Street, Blackness, and St. Mary's. 311 showed decay of the first permanent molars suitable for fillings. Nurse Sutherland visited the homes of these children selected for treatment and explained to the parents what could be done to save the teeth. There were 159 defaulters, i.e. 49 per cent. failed to attend for treatment after consents had been obtained and appointments made. The dental nurse has kept a list of these defaulters, and unless a satisfactory excuse be given, I suggest that any future advice or treatment be refused. The annual dental inspection of all school children is still the ideal to be sought. Unless the small cavity of decay, unknown to the child, is discovered by the dentist and treated, there will always be an enormous number of unsavable teeth, much suffering and ill-health, and an undue number of "casuals" for extraction.

Of the 83 reinspections 39 received retreatment.

### Treatment at the School Clinic.

The following operative work was done :—

Fillings	....	....	....	623
Dressings and Applications	....	....	....	1,118
Extractions—				
Temporary Teeth	....	....	....	1,815
Permanent Teeth	....	....	....	178
Anaesthetics—				
Local	....	....	....	1,139
General	....	....	....	76
Other Treatment and Advice	....	....	....	195

The children attending numbered 3,264, increasing last session's figure by 621.

They gave a total attendance of 3,894 and average of 1.1 visits per child.

Casual cases presenting themselves for extractions are still unduly high, but it is satisfactory to note that I have been able to reduce the number in the case of permanent teeth.

Many cases of irregularity of the teeth have been sent to the Dundee Dental Hospital at the request of the Dean and have been successfully treated by means of orthodontic appliances.

The Dental Board of the United Kingdom kindly arranged for the giving of illustrated health talks on the teeth to the advanced pupils by two of their lady lecturers. The lectures were well received.

Mr King, L.D.S., D.P.D., attended the clinic and the inspection at schools in accordance with the requirements for the diploma in public dentistry of St. Andrews University.

Nurse Sutherland still continues to be of great value in the carrying out of the work of the scheme.

Again I thank you and all who have facilitated the work of the School Dental Service.

(Signed)      ERNEST E. CASSADAY,  
M.B., Ch.B., L.D.S., D.P.H.

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## Dundee Area.

## OPHTHALMIC SPECIALIST'S REPORT, 1931-1932.

Dear Sir,

I beg to submit the following detailed list of 1,684 cases seen by me at the School Clinic during the session 1931-1932 :—

Refractions	....	....	....	834
Corneal Ulcers	....	....	....	462
Detachment of Retina	....	....	....	1
Blepharitis ....	....	....	....	85
Admitted to Sight-Saving School	....	....	....	6
Foreign Bodies	....	..	....	3
Trachoma ....	....	....	....	18
Interstitial Keratitis	....	....	....	85
Conjunctivitis	....	....	....	60
Hordeolum	....	....	....	10
Lachrymal Abscess ....	....	....	....	9
Follicular Conjunctivitis	....	....	....	27
Corneal Nebulae	....	....	....	7
Congenital Word Blindness	....	....	....	2
Chalzion ....	....	....	....	17
Sebaceous Cyst	....	....	....	2
Tear Duct Obstruction	....	....	....	32
Lid Abscess	....	....	....	4
Dermoid Cyst	....	....	....	1
Wart of Lid	....	....	....	1
Wound of Cornea	....	..	....	18
Total				1,684

My best thanks are due to the full-time Medical Staff and the Clinic Nurse for valuable assistance during the past year.

(Signed)      ANGUS MACGILLIVRAY,  
C.M., M.D., D.Sc.

## EAR, NOSE, AND THROAT DEPARTMENT.

New cases seen	....	....	....	625
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## Diseases of the Ear—

A.O.M.S.	....	....	....	87
C.O.M.S.	....	....	....	48
External Otitis	....	....	....	1
Catarrhal Otitis Media	....	....	....	13
Mastoid	....	....	....	5
Inflation	....	....	....	9
Paracentesis	....	....	....	2

## Diseases of the Nose and Throat—

Nasal Catarrh	....	....	....	48
Sinus Nasal Suppuration	....	....	....	1
Other Nasal Conditions	....	....	....	9
Conservative Treatment	....	....	....	276

## Operative Treatment—

Tonsils and Adenoids	....	....	....	509
Mastoids	....	....	....	5
Old patients examined	....	....	....	307
Negative examinations	....	....	....	39
Total number of cases examined	....	....	....	932
Average number of cases examined daily	....	....	....	21

(Signed) M. J. GIBSON,  
M.B., F.R.C.S.E.

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## X-RAY SPECIALIST'S REPORT, 1931-1932.

During the past session 72 children have made 457 attendances at this Department. The diseases from which they suffered are given in the attached table :—

Ringworm—Microsporon	....	....	10
Trichophyton	....	....	4
Kerion ....	....	....	3
Favus	....	....	1
Other diseases of the hair	....	....	17
Streptococcal Dermatitis	....	....	17
Other diseases of the skin	....	....	20
			—
Total	....		72
			==

Owing to the slowness of operation of the apparatus there is only time for the treatment of one patient per day, but apart from this the apparatus still gives excellent results.

I would draw attention to the cases of Streptococcal Dermatitis, which is often a most chronic disease, affecting chiefly the scalp and face, and causing many months and even years of absence from school. With the treatment now employed, and thanks, principally, to the unremitting daily care of Nurse Miller, these children are now able to return to school in a much shorter time than heretofore. I have to thank her and the rest of the staff for their cordial co-operation and helpful assistance.

(Signed) JOHN KINNEAR,  
M.D., M.R.C.P.Ed.

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### Holiday Homes.

During the past session there have been 1118 children who have been to one or other of the Holiday Homes which do so much for the city children.

To all those 1118 children has been given the marked physical improvement which follows a fortnight's stay in a Holiday Home.



The benefit received is often the means whereby the child can carry on during the winter months, and many children would be seriously handicapped were they not able to get away for the needed rest.

To all the willing workers of the Homes, those 1118 children send their thanks. The pleasant memories of Auchterhouse Holiday Home (Dundee Invalid Aid Society), Comerton Home, Newport, Marfield Home, Rattray (Dundee Social Union), and St. Leonard's Home, St. Andrews, are talked about for many a long day after the lucky visitors have returned to their own homes.

The "Pearson's" Picnics, the "Rotary Club" Picnic, and the "Toc H" Picnic for retarded boys, are now regularly established and are looked forward to by many children. This year they were again favoured with good weather and everyone enjoyed the outings to the utmost.

I would beg to thank each and every member of the staff for their very great help during the past session, for their willingness in undertaking extra duty when the members of the staff were reduced by sickness, for the unfailing courtesy and tact they exhibit in dealing with the patients, and their care of the children.

It has only been by their thoughtfulness and co-operation that the smooth working of the system has been possible.

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## VETERINARY INSPECTION.

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REPORT BY MR H. FERRIER, Veterinary Surgeon.

### Dairies.

During the year 211 visits of inspection were made by me to Dairies and 3,444 cows and 96 other animals were examined.

There were 700 cows in this District during the year.

The general conditions and cleanliness of the cattle were very satisfactory.

The quality of hay was very moderate, whilst that of straw and turnips has been exceptionally good throughout the year.

13 cows were slaughtered under the T.B. Order, 1925, all of which were subjected to the Tuberculin Test, and found Tuberculous on post-mortem examination.

8 cows were slaughtered under the T.B. Order, 1925, after clinical examination.

57 cows were tested with Tuberculin for the purpose of supplying Grade "A" milk, 47 passed the test and 10 reacted.

### List of dairies holding graded milk licences in respect of tubercle-free herds.

Name and Address.	Average number of herd.	Estimated number of Gallons produced per annum.
<i>Certified—</i>		
Messrs Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	11	12,775
<i>Grade "A" (L.T.)—</i>		
Messrs Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	11	12,775

During the year six samples of milk were submitted for Bacteriological and Biological examination and were found to be free from Tubercle.

The regulations under Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, are being duly complied with in this district and there has been no occasion which demands special comment.

### **Meat Inspection at Slaughter-Houses and Dead Meat Market.**

During the year 53,618 carcasses were inspected.

The number of cases of Tuberculosis detected during the year was 2,151, an increase of 120 cases as compared with 1930. Of the aforesaid number 618 were cows, an increase of 9 as compared with 1930.

The total amount of meat seized under this Head during the year was 163,340 lbs., an increase of 39,702 pounds as compared with 1930.

The number of carcasses wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

YEAR.	Bulls.	Bullocks.	Heifers.	Cows.	Calves.	Sheep.	Pigs.	Total.
1927	113	908	16	429	—	—	86	1,552
1928	170	943	16	571	2	—	158	1,860
1929	168	1,198	31	678	2	—	92	2,169
1930	156	1,186	19	609	1	—	60	2,031
1931	190	1,239	16	618	—	—	88	2,151

### **Other Diseases.**

The detections under this Head during the year amounted to 1,656, a decrease of 259 cases as compared with 1930. The total amount of meat seized being 45,829 pounds, a decrease of 15,253 pounds as compared with 1930.

### **Animals Slaughtered at Public Slaughter-Houses.**

The number of detections of disease during the process of slaughter for the year was 5,022, an increase of 395 cases as compared with 1930.

### **Carcasses Dressed and Undressed brought to the Slaughter-Houses.**

The number of detections of disease in consigned carcasses during the year was 369, a decrease of 108 cases as compared with 1930.

### Cattle, Sheep, and Pig Organs.

During the year 14,053 cattle, sheep, and pig organs were seized and condemned as compared with 13,649 during 1930, an increase of 404 organs for the year.

The following is a synopsis of the organs seized and condemned during the year :—

Cattle Organs.			Sheep Organs.			Pigs' Organs.		
Cows' Udders	....	845	Livers	....	28	Udders	....	32
Livers	....	2,101	Plucks	....	425	Plucks	....	100
Lungs	....	2,250	Kidneys	....	946	Kidneys	....	114
Hearts	....	848	Lungs	....	617	Livers	....	58
Kidneys	....	2,079			—	Lungs	....	20
Heads	....	734	Total	....	2,016			—
Tongues	....	774			=====	Total	....	324
Skirts	....	2,082						=====
Total	....	11,713						

### Tinned and Frozen Meat.

During the year 30 pounds frozen ox livers, 36 pounds frozen ox kidneys, and 54 pounds tinned meat were seized for decomposition.

### Cattle Market.

The Cattle Market was visited by me every market day (Tuesday), and all the cattle, sheep, and pigs exposed for sale inspected for the purpose of preventing animals showing symptoms of disease, and which are ultimately intended for human food, being sold. The Superintendent of the Market and I seize all suspicious animals exposed for sale in the fat stock market, under powers conferred by Section 43 of the Public Health (Scotland) Act, 1897, which renders the owners of animals so seized liable to prosecution. The owners of such animals are given the option of sending them to the Slaughter-House to be killed. There the carcasses undergo a minute inspection and are dealt with on their merits. In the event of the owner of such failing to comply with our request, the animal can be seized and the owner prosecuted under the Act above-mentioned.

During the year 2 cows were seized in the Cattle Market with the owner's consent as suspicious animals and sent to the Slaughter-Houses to be slaughtered.

Throughout the year licences were granted for the movement of 66 Irish cows and 56 Irish store cattle sold in the Cattle Market.

### **Anthrax.**

There were no cases of this disease during the year.

### **Swine Fever.**

During the year 2 outbreaks of this disease occurred involving 25 pigs. 5 died on the premises and their carcasses were burned; 16 were killed on the premises and their carcasses destroyed, leaving 14 pigs still on the premises. Both premises are still declared to be Swine Fever infected places and under the control of Form "A."

One visit was made examining 2 pigs reported as having been in contact with swine fever infected pigs, but they showed no symptoms of this disease.

One visit was made examining pig suspected of being infected with Swine Fever. A report was submitted to the Ministry and Form "A" was served on owner with copy to Ministry, Local Authority, and Police.

One visit was made examining pig reported dead, and a report was submitted to the Ministry. Form "A" was served on owner with copy to Ministry, Local Authority, and Police, but was later withdrawn.

### **Parasitic Mange.**

There were no cases of this disease during the year.

### **Foot and Mouth Disease.**

There has been no outbreak of this disease in the City during the year.

During the month of June the existence of Foot and Mouth Disease in England and Scotland was confirmed by the Ministry of Agriculture and Fisheries. All the affected animals involved were Irish animals which had recently been imported from Northern Ireland. The Ministry issued an Order designated the Foot and Mouth Disease Standstill Order for Great Britain prohibiting the movement of all cattle, sheep, goats, and swine in Great Britain, except by licence, and



prohibiting all markets, sales, and exhibitions of such animals except licenced markets and sales of fat stock for immediate slaughter. This Order was periodically amended releasing unaffected areas.

During the restricted period the Local Authority granted a licence for the sale of fat stock in the Cattle Market for immediate slaughter. The movement of such stock to and from the market was controlled by licence.

6 visits were made inspecting contact animals and serving Detention Notice on owners of animals from Perth and Ireland.

6 visits were made inspecting animals under detention.

8 visits were made tracing animals reported as having been in contact, but it was found that they had gone to the County instead of coming to Dundee. This was duly reported to the County Authorities.

During the restricted period 592 Foot and Mouth Disease Movement licences were issued by this Department.

### **Transit of Animals Order, 1927, and Amendment Order of 1930.**

Under this Order all railway trucks and road vehicles, whether mechanically propelled or horse-drawn, used for the conveyance of live stock to a market must be washed, scrubbed, thoroughly cleansed, and thereafter disinfected before leaving the market and before any other animal, or any fodder or litter, or any other thing intended to be used for or about animals is placed in it, provided the Local Authority have such washing facilities or have caused such facilities to be erected.

A record of all animals carried and the dates and places at which the vehicle was cleansed and disinfected must be kept available on the vehicle to which it relates by the owner.

During the year four motor drivers were prosecuted for contravening the above Order, two were fined 20/- each, one 30/-, and the other 21/-.

During the year 1,667 motor floats, 263 horse floats, and 60 crates, bringing in cattle, sheep, and pigs to the Market, were washed, scrubbed, and disinfected at the Cattle Market.

From periodical visits made by me to the various Railway Stations it was observed that the Railway Authorities are adhering to this Order.

### **Veterinary Attendance on Horses belonging to the Corporation.**

During the year 6 horses were examined for soundness before being purchased by the Horse and Provender Committee, 5 for the Cleansing Department and one for the Eastern Poorhouse.

The attendance during illness of horses belonging to the various departments necessitated 36 visits during the year.

The whole stud is in a satisfactory state of health and in good working condition.

### **Other Work.**

2 visits to Cold Store examining the carcases of 30 sheep and 100 lambs.

4 visits to 4 pigs reported dead. There were no symptoms of any infectious disease.

1 visit to Knaekery making post-mortem on dead horse belonging to the Cleansing Department.

One visit to Broughty Ferry examining ponies for sands.

3 visits inspecting 522 sheep suspected of being infected with Sheep Scab.

4 visits inspecting 23 sheep and one lamb infected with Sheep Scab and serving Form "A" on owner, also witnessing 552 sheep being dipped for second and third time.

One visit inspecting 549 sheep recovering from Sheep Scab. Served Form "B" on owner and forwarded copies to Ministry, Local Authority, and Police.

2 visits to 2 cows reported dead. Neither of them exhibited any symptoms of Contagious Disease.

One visit examining 8 pigs. They were all in good health.

One visit to pig at Ashludic.

5 visits were made to Whitelawston.

HUGH FERRIER, M.R.C.V.S.,  
*Veterinary Surgeon.*



## SANITARY DEPARTMENT.

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REPORT BY MR R. MITCHELL, Chief Sanitary Inspector.

SANITARY DEPARTMENT,  
WEST BELL STREET,  
DUNDEE, 16th May 1932.

To the Honourable—

*The Department of Health for Scotland ; and  
the Lord Provost, Magistrates, and Councillors—  
the Local Authority of the City of Dundee.*

GENTLEMEN,

I have the honour to submit my Annual Report showing the work of the Sanitary Department during the year 1931. The Report has been prepared in accordance with the circular of the Department of Health for Scotland dated 16th December 1931, which requires, *inter alia*—

- (a) A general account of the sanitary state of the area.
- (b) Particulars with reference to the populous places in the district.
- (c) An account of his general inspections.
- (d) An account of the condition of the common lodging-houses.
- (e) An account of the condition of the burial grounds.
- (f) Observations on food inspection.
- (g) A report on the work done under the Food and Drugs (Adulteration) Act, 1928, the Public Health (Preservatives, etc., in Food) Regulations, and the Orders relating to Milk.
- (h) A statement in connection with Registered Dairies and Exempted Premises in the district.
- (i) An account of any proceedings under the Housing (Scotland) Acts, 1925 and 1930—as a designated officer.

### Introductory.

The year under review has been singularly unfortunate in the Industrial World, the depression of the past few years having been maintained and, if anything, intensified. Depreciated capital and income have rendered it increasingly difficult to prevail upon owners and agents of property to execute works of improvement whether major or minor, greater persuasive effort on the part of the Department being necessary to obtain the work required carried out.

*Tuberculous Milk Inquiry.*—Superimposed upon the ordinary duties was that of obtaining the samples necessary in connection with this inquiry. So far as this City is concerned this important work was

terminated after the taking of 1,555 samples by reason of the Government's Economy Campaign, when the grant was greatly curtailed.

Details will be found throughout this Report under the appropriate heading of the many ramifications of the Department, and in this connection I desire to place on record the exceptionally loyal manner in which all the Staff have supported me throughout the year—a loyalty and support which I much appreciate.

The Housing Section have again had an enormous amount of work to get through, often labouring into the night until reports required urgently by the Housing Committee or Department of Health for Scotland were completed. The Sampling Officers, too, assisted by the two Junior Officers, had to be up betimes—as early as 3 a.m. to be at consignees' premises or Railway Stations to obtain samples of milk required for Bacteriological examination in furtherance of the Inquiry into the Tuberculous Infection of the Milk Supply of Scotland.

### Staff.

The number and composition of the staff are as follows :—

- 1 Chief Sanitary Inspector.
- 1 Superintendent.
- 1 Plumber Inspector.
- 1 Housing Inspector.
- 3 Housing Officers.
- 2 Food Inspectors and Sampling Officers—Food and Drugs Acts.
- 4 District Inspectors.
- 1 Port Officer.
- 4 District Officers.
- 2 Junior District Officers.
- 2 Clerks (one Certificated—ranks as Inspector).

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Total 22

Since the period covered by this Report, it is with the deepest regret we have to record the death of Mr Forbes Grant, the Department's Chief Clerk, who has given his services in the interests of public health for the past 40 years. Mr Grant was a painstaking official, always taking a great pride in whatever duties he had to perform, and in his death we have suffered a great loss, not only as an official but as a friend.



### Death-Rate : Density of Population, and Acreage.

The death-rate per 1,000, as calculated and corrected by the Medical Officer of Health, for 1931 was 13·9, as against 16·0 in 1930 and 16·0 in 1929.

The population, as estimated to the middle of 1931 by the Registrar-General, is 176,006.

The acreage of the City, excluding foreshore, is 6,548. This works out at 26·88 persons to an acre.

### Rainfall.

The total rainfall in Dundee, as noted at the Eastern Necropolis and reported by the Superintendent of Cemeteries, was 31·62 inches, as against 33·30 inches last year. The figures for each month are as follows :—

January	....	....	....	....	2·94 inches.
February	....	....	....	....	1·35 inches.
March	....	....	....	....	0·95 inches.
April	....	....	....	....	2·13 inches.
May	....	....	....	....	3·42 inches.
June	....	....	....	....	4·50 inches.
July	....	....	....	....	4·95 inches.
August	....	....	....	....	3·39 inches.
September	....	....	....	....	1·04 inches.
October	....	....	....	....	1·21 inches.
November	....	....	....	....	4·82 inches.
December	....	....	....	....	0·92 inches.
Total					31·62 inches.

This shows an average fall of 2·63 inches per month, as against 2·77 inches of the former year, and 2·23 in 1929.

### Public Sewerage of the City.

Dundee is very happily situated for disposal of its sewage. It has direct discharge into the tidal waters of the Firth of Tay, thus obviating the vast expenditure which many inland towns have to bear when confronted with the problem of sewage disposal.

The work of constructing and maintaining sewers in the City is carried out by the Works Department under the City Engineer. In

the past year approximately  $2\frac{1}{2}$  miles of new sewers were laid down, making the total length of sewers in the City 143·130 miles. In maintenance and repair the sum of £3,992 was spent.

During the past few years the City Engineer's Department has taken the opportunity to replace existing untrapped gullies with those of modern design. There are still many old fashioned ones, but these are being gradually reduced in number when carrying out street improvements. There is active co-operation between the Works and Sanitary Departments in this connection, and complaints about offensive old gullies are dealt with so far as is consistent with economical administration.

In regard to replacement of open gullies with the more modern trapped type, a question of importance is likely to arise in the near future; and that is the provision of additional vents for the sewers. By the old method the gullies acted in the dual capacity of carrying away the street surface water and at the same time acting as ventilating shafts for the sewers themselves. By the new type of gullies such ventilation is restricted.

### Water Supply.

The Corporation are responsible for the Supply of Water to the City. The Department particularly concerned therewith is under the charge of Mr George Baxter, O.B.E., A.M.I.C.E., who reports as follows :—

“ The principal source of supply is Lintrathen Loch, from which in a normal year over 80 per cent. of the requirements of the City and District are supplied. The other sources of supply are Monikie and Crombie Reservoirs, the former source being utilised to supplement the supply from Lintrathen, while normally Crombie provides the supply to the Burgh of Carnoustie and surrounding district.

The average quantities of water drawn daily from the various Reservoirs during the past year were as follows :—

Lintrathen ....	....	....	....	....	....	8,559,200
Monikie ....	....	....	....	....	....	1,808,000
Crombie (for the supply of Carnoustie)	....	....	....	....	....	261,800
Total ....						<u>10,629,000</u>

This total is lower by 259,000 gallons than the figure for the previous year, and in this reflects the reduced demand for water for industrial purposes during the past year.

The above total represents a daily consumpt of 52·10 gallons per head of the population supplied, i.e. 204,000. Of this consumpt per head 13·06 gallons represents water used for trade and industrial purposes through meter, while the remaining 39·04 gallons represents the average daily consumpt for domestic purposes, unmetered trade consumption, general public health purposes, including street and sewer flushing, and leakage. The average daily consumption per head for domestic purposes only is approximately 35 gallons. Recent metered observations of the consumpt for domestic purposes in different parts of the City show wide variation, the rate varying from over 100 gallons per head per day in some cases to as low as 10 gallons per head per day in congested localities where facilities for the use of water are restricted to a single  $\frac{1}{2}$ -inch tap.

The following is a typical chemical analysis of the water supplied from Lintrathen Loch :—

*One Million Parts of this Water Yield.*

Free Ammonia ....	....	....	....	....	·002.
Albuminoid Ammonia ....	....	....	....	....	·088.
Carbonate of Lime, etc.	....	....	....	....	30·00.
Chlorine ....	....	....	....	....	9·00.
Nitrogen, as Nitrates ....	....	....	....	....	None.
Nitrites ....	....	....	....	....	None.
Hardness, in Clark's Degrees ....	....	....	....	....	2 Degrees.
Lead or other Poisonous Metals	....	....	....	....	None."

**Domestic Water Supplies—Sinks, Etc.**

When complaints anent deficient supply of water are received at the Department notices are sent to the Water Department, the Inspectors of which examine the fittings and determine as to their adequacy or otherwise. In the latter condition, a report is submitted to the Public Health Committee, who issue instructions to serve notices on the owners of the properties concerned. In this connection, 18 properties had larger main water service pipes installed.

43 sinks were provided throughout the year at properties within the City—7 of which were renewals. The remaining 36 are allocated as follows :—

- 24 were provided in attie houses,
- 3 were installed in shops, and
- 9 were supplied within houses in a property where the water supply was formerly drawn from a tap on staircase.

### Scavenging and General Nuisances.

*Scavenging* does not come within the prescribes of the Department, being wholly under the care of a separate official, who is responsible for the proper cleansing of streets, removal of refuse, and the disposal thereof. This latter branch of the service is gradually becoming mechanised to the elimination of the horse-drawn vehicle. More expeditious removal is thereby assured.

No serious complaints have reached this Department thereanent.

*General Nuisances.*—Much of the District Inspectors' time is taken up in connection with this branch of the work, and it may be considered as a day to day routine job—with little variation—the nature and type of nuisance dealt with frequently repeating. Of the more serious nuisances reported for attention throughout the year mention might be made of—Smells in First Ward.

Ward One of late years seems to have derived the title of "The Ward of Smells," and this year further complaints were sent to this Department. The emptying of the sump or trap in the intercepting outfall sewer at the west end of Constable Street gave rise to strong protests as to the manner in which this filth was conveyed to a dumping ground. A motor lorry was used, the sides of which were badly fitting, allowing a part of the matter to fall into the streets during transit. In addition, the emanations from the filth were fouling the air of a very thickly populated area. The question was taken up with the City Engineer and the Cleansing Superintendent, and a more suitable vehicle and greater care were assured for the future. I am of opinion a proper gully cleaner is required for the efficient emptying of traps of this description.

At the east end of the City a former dumping ground has been transformed beyond recognition by the keen energy shown by the members of a local football club. What was formerly untidy waste ground, a harbourage for vermin, has now become an enclosure of which the club can, to say the least, feel proud. Assistance in building the banking surrounding the ground was given by the Cleansing Department, who at the same time found an unlooked for outlet for the disposal of certain kinds of refuse. In this connection complaints were received regarding the insufficiency of cinder or earth covering over each load dumped, and to the amount of paper deposited which was being blown in the region of nearby dwelling-houses during stormy weather. On the matter being taken up with the Department concerned, the dumping and covering was then carried out in a manner giving no rise to further complaints.



Following an enquiry in regard to rat infestation at Barnhill, it was discovered that the locus had been used for a few years as a dumping ground by the occupiers of a number of houses in the vicinity. Steps were immediately taken to prevent further deposits being made, and after some discussion the owners of the ground agreed to remove the deposited material. This was done, altogether 50 loads being removed.

A complaint regarding the insufficiency of the drains at West Balgillo Dairy Farm, where improvements and additions had been made, causing extra volume of water, etc., to be carried by the drain with which it was not able to cope. The drain was connected to a cesspool, the overflow from which passed into an agricultural drain. On this latter drain being opened it was found to contain sewage, and passing as it did through the policies of another estate, periodical inundations were experienced on the latter ground through choking of the drain. After considerable correspondence and an Intimation under Section 120 of the Public Health (Scotland) Act, 1897, served on the Owner to abate the nuisance complained of, the matter was reported to the Public Health Committee, who at their meeting on 23rd November agreed the whole circumstances be reviewed by a Sub-Committee. The ultimate result of their deliberations was that as sewer facilities were not available, a sewer be laid from this farm to the nearest existing sewer—at a cost estimated by the City Engineer of £1,300. This work is now in progress.

56,687 visits of inspection were made in the detection of nuisances, 12,482 of which were discovered and steps taken for their abatement.

### **Whitewashing and Painting Common Stairs and Passages.**

In June, Letter Intimations involving 683 properties where such work was required were dispatched.

Early notification of the necessity for this “spring cleaning” enables Agents or Owners to make arrangements with their tradesmen so that the progress of the work may run smoothly and congestion is avoided. Excuses for delay, advanced long ago, of not being able to get labour would indeed be far fetched in these distressing times of unemployment.

On the whole the work was carried out in a fairly satisfactory manner, although in October it was found necessary to serve 66 Notices under Clause 354 of “The General Police and Improvement Consolidation Act, 1862,” which is embodied in “The Dundee Police and Improvement Consolidation Act, 1882.” This refreshed the



minds of the delinquents remaining as to their obligations and the work was mostly undertaken. Delay in a few instances was caused through restoration and re-conditioning work being in progress or contracted for, but the postponement was only of a temporary nature, as soon as the tradesmen were finished the whitewashing and painting was put in hand.

Whitewash Brushes were again much taken advantage of by the more needy members of the community. In the course of the year brushes were issued on 3,906 occasions, said to be for the cleaning of some 7,687 rooms. In necessitous cases, where recommended by the Inspectors, whitening and oil were given free.

### Stables and Piggeries.

STABLES.—In a few years' time, if mechanical transport continues to thrive as at present, it looks as if the above sub-heading will be expunged from our Annual Report.

There were 490 visits of inspection paid to these premises throughout the year, and it may be said they were kept in a satisfactory manner as regards manure removal and general cleanliness.

PIGGERIES.—These establishments, too, are decreasing in number. Perhaps the reason for this, as mentioned in last year's Report, is the expansion of the City. No person wants to build or buy a house cheek-by-jowl with a piggery; usually the pig-rearers bow to the inevitable, dispose of their stock and sty, thereafter discontinuing business. In any case pig-rearing is more suited to rural than to urban areas—possibly there may be an exodus of this trade to the country districts.

During the year 218 visits were made to piggeries and all were found to be conducted, so far as practicable, quite satisfactorily.

### Back Courts, Areas, Footways, Etc.

It is hardly necessary at this late day to advocate or extol the virtues of paving of Back Courts, etc. The benefits of this are palpable, and, once experienced, regarded as indispensable.

The comfort, apart from the sanitary point of view, which is naturally paramount, of having impervious footways, areas, etc., to walk upon during wet weather cannot be other than appreciated by those whose homes are in large tenemental properties. Another salient advantage of paving is its suitability for brushing and flushing—

the latter operation being impossible over greens or unpaved areas, while the former would not yield results worthy of the expenditure of the labour. During 1931, 5,398 square feet of paving flags, concrete, etc., were provided or relaid in a satisfactory manner—drainage facilities, where necessary, being provided.

The employees of the Cleansing Department render great assistance in the keeping of the above places clean by way of brushing and periodical flushing.

### **Schools.**

These places call for no special comment in this Report. They have been maintained in a thoroughly satisfactory manner—arrangements for cleaning, painting, and equipment being wholly under the supervision of a separate Department and staff. As it is with houses, so it seems to be with schools—to have them situated in the open parts of the City, as witness the new Harris Academy, probably the latest idea in school design and equipment, situated in a very open part of the town with a view of the river-front to its whole extent in no way interrupted.

### **Complaints.**

A complaint, irrespective of degree, necessitates immediate investigation. Delay in dealing with nuisances such as choked drains, etc., might lead to appalling consequences—therefore our keynote is promptitude.

Inspectors investigating complaints, however, are not always fortunate enough to find the complainer at home—a locked door means another journey, which is time lost, and a loss of time in our business of preventing trouble is a very serious matter.

During 1931, 3,921 complaints, as compared with 4,171 in 1930, were received at the Office, and out of these “No cause for complaint, quarrel, etc.,” was inscribed in the Register of Complaints on 174 occasions. The unfounded complaint is the bugbear of an Inspector’s existence, but there is no alternative, it must be enquired into.

We have again to record appreciation to the Departments of the Chief Constable and Superintendent of Cleansing for notification of nuisances. This aids immensely in our task.

### **Statutory Intimations or Notices.**

Under the Public Health (Scotland) Act of 1897 ; Local Acts ; the Burgh Police (Scotland) Acts, and the Factory and Workshops

Acts, etc., there were 17,367 notices or intimations, written or verbal, served upon the proprietors or agents of property or authors of nuisances. These have received or are now in the course of receiving attention.

No Statutory Notices were authorised by the Public Health Committee as the Local Authority for service in terms of Section 20, as all the nuisances were abated on intimation served in terms of Section 19 of the first-named Act.

### **Plans Submitted to the Works Committee.**

This Department is the prime mover in connection with Sanitary Improvements on Properties, and the plans thereanent are examined by me prior to being laid before the above Committee for approval.

This ensures anything therein likely to be detrimental to surrounding properties, or unsuited to the property under consideration being objected to, and a specific reason therefor advanced.

### **Drainage and Structural Work.**

During the year 104 properties have had their drainage systems improved, and in 62 properties additional W.C.s were provided or replaced by modern appliances—in connection with which the following materials have been used :—

- 175 Water Closets.
- 43 Sinks.
- 22 Wash Tubs.
- 66 Lead Traps.
- 10 Roof Lights.
- 13 Roof Ventilators.
- 2,268 feet W.C. Soil Pipe.
- 1,134 feet Waste Pipe.
- 4,424 feet Water Pipe.
- 939 feet Flushing Pipe.
- 2,666 feet Ventilation Pipe.
- 211 feet Cast-Iron Drain.
- 9 Cast-Iron Traps.
- 217 yards Drain Piping.
- 27 Drain Traps.
- 19 Drain Inspection Chambers.
- 140 W.C. Apartments.

1,610 Inspections were made by the Plumber Inspector during the progress of the work.

### Water Closets.

175 Water Closets were installed during the year with all necessary soil, flushing, ventilating, and water piping at 62 different properties :—

54 were new Water Closets installed within houses.

19 were renewed in houses.

5 were renewed on stairs, etc.

3 were installed in offices.

5 were installed in workplaces.

1 was installed in stable premises.

5 were provided on attie floors, and

83 were additional conveniences on staircases.

There are still a large number of properties in need of additional W.C. accommodation. The difficulty is to get proprietors to proceed with desired improvements, the want of capital being usually given as the excuse. No doubt this is to a large extent true. Tenants, however, paying increased rents, object, and rightly so—to the conveniences being insufficient or situated a long distance from their houses.

### Washing-Houses.

3 new Washing-Houses were erected at properties where formerly there was no such provision, while in 2 instances the washing-houses were entirely re-constructed. 3 Gas Boilers and 22 Fireclay Washing-Tubs were fitted, 16 of the tubs being fitted in washing-houses where none existed previously or where the tubs were of timber construction and had been allowed to get into a decaying condition.

## Earth Closets, Privies, and Privy Middens.

AS AT 31ST DECEMBER 1931.

SITUATION.	NUMBER OF		TO SERVE.		
	Privies or Earth Closets.	Privy Middens.	No. of Households.	Persons.	
				M.	F.
Dighty Toll House . . . . .	1	....	1	3	5
Old Manse, Mains, and Lodge . . . . .	2	....	2	3	6
Castlo Mains (North House) . . . . .	1	....	1	....	3
Kirkgate, Mains . . . . .	1	....	1	1	2
Trottick N.W. Cottages . . . . .	2	....	6	10	11
"    N.    "    . . . . .	2	....	6	9	11
"    N.E.  "    . . . . .	2	....	5	12	14
"    E.    "    . . . . .	1	....	1	2	3
"    S.    "    . . . . .	2	....	6	10	11
Balmuir Cottage . . . . .	1	....	1	3	3
Balmuir Smithy . . . . .	1	....	1	2	....
Magdalene's Kirkton (Cotton) . . . . .	1	....	1	2	4
Balmuir (Cotton) . . . . .	1	....	1	2	3
Harstane Mill . . . . .	1	....	2	2	4
South Baldovan Farm . . . . .	1	....	1	1	2
East Pitempton . . . . .	1	....	1	2	2
Pitempton Railway Cottages . . . . .	2	....	2	1	3
Pitempton Cottage . . . . .	1	....	1	1	1
517 Strathmartine Road . . . . .	1	....	1	1	5
Station Cottage, Cox Street . . . . .	1	....	1	4	2
West Kirkton Cottages, Kirkton Road . . . . .	2	....	5	9	10
Baekhill of Balgay . . . . .	1	....	3	6	9
King's Cross Cottar House . . . . .	1	....	1	1	1
Hillside Farm . . . . .	1	....	1	6	5
Blackness Nursery (Cottages) . . . . .	‡2	....	2	6	3
Bingham Terraco (Gallowhill) . . . . .	1	....	1	3	3
208-210 Arbroath Road . . . . .	....	2	2	5	6
399 Arbroath Road (Craigie North Lodge) . . . . .	1	....	1	1	4
Gotterstone Cottar Houses (North) . . . . .	....	5	5	15	12
do.    do.    do. (South) . . . . .	2	....	2	6	7
51 Forthill Road (Pullar) . . . . .	1	....	1	1	1
52    do.    do. (M'Quarrie's Houses) . . . . .	3	....	3	3	5
Balgillo Road (Watt) . . . . .	1	....	1	2	1
do.    do. (Keillor) . . . . .	1	....	1	4	2
do.    do. (Elriek) . . . . .	1	....	1	1	1
East Balgillo Cottar House . . . . .	1	....	1	2	3
do.    do.    do.    do. (Grieve's House) . . . . .	....	1	1	2	2
Barnhill Farm (Grieve's House) . . . . .	1	....	1	1	2
434 King Street, Broughtly Ferry . . . . .	1	....	1	....	1
West Balgillo Cottar House . . . . .	1	....	1	1	4

‡ Both houses under Closing Orders.

This list, we are pleased to observe, is gradually being reduced. It is hoped in the near future it will be more so, as the construction of sewers in the outskirts of the City is being pushed forward.



### Ashpits and Ash or Dust Bins.

Part VI. of the Dundee Corporation (General Powers) Order, 1930, which became operative during that year, enacts in connection with the above :—

“ The Corporation may require the proprietor of any new or existing building used as a dwelling-house or dwelling-houses to remove or shut up the ashpits in rear of or connected with such building and may also require such proprietor to provide portable ashbins of a construction approved by the superintendent of cleansing and in such number as may be required by such superintendent and on such ashbins being provided in accordance with the provisions of this sub-section the Corporation shall maintain and when necessary renew such ashbins provided the proprietor shall pay to the Corporation in respect of the Corporation's obligation to maintain and renew each such ashbin the sum of two shillings annually.

The Corporation may also enter into agreements with proprietors of buildings used as aforesaid at present provided with ashbins that the Corporation shall where the proprietor has provided or provides a portable ashbin of a construction approved of by the superintendent of cleansing maintain and when necessary renew such ashbins provided the proprietor shall pay to the Corporation as the agreed cost of the maintenance and renewal of each such ashbin the sum of two shillings annually.”

*Modus Operandi.*—The Superintendent of Cleansing furnishes a list of properties where ashpits exist, the removal or closure of which he considers expedient, to the Town Clerk, who in turn signs an order for this to be done and the substitution therefor of the number of bins estimated by the Superintendent of Cleansing to be necessary for the requirements of the property in question.

The “ maintenance system,” as mentioned in the foregoing excerpt from the Order, is, as may be imagined, a great incentive to Property Owners to adopt the bin system ; the change over frequently being voluntary.

The following figures will show what was done during 1931 towards the aim of creating a 100 per cent. ashbin system :—

- 418 Insanitary (or otherwise unsuitable, owing to dilapidation, etc.) ashpits were demolished and replaced by  
 1,122 modern ash or dust bins.  
 1,069 new bins were provided as replacements, and  
 20 bins were installed where hitherto there had been no such  
 accommodation,

and I think we can congratulate ourselves on the year's work in this respect.

*Association of Ideas.*—Everyone is familiar with this phrase, and has, at one time or other, had experience of it. To my mind it can be aptly applied to ashpits. The very word ashpit influences our trend of thought to an open, offensive, and frequently dilapidated receptacle for household refuse. Thereafter we conjure up visions of stinking, decomposing contents, alive with flies—a recognised medium of disease transmission. From smell our meditation continues to sore throats and eventually an epidemic of some disease.

There is no use attempting to deny the necessity for refuse storage accommodation, but all can agree, the bin provides it to a nicety, in fact with its lid securely fitted and contents hidden from view, the imagination is not so prone to stray to unpleasantness.

### Housing.

Practically since the inauguration in the year 1919 of what is commonly called "The New Housing Era," when the Council decided definitely on the one hand to systematically attack the serious problems within the City created by the shortage of houses and insanitary and unhealthy areas; and, on the other, the provision of modern houses equipped with what scientific research has declared as the necessary requirements of a healthy home; it has been part of my duties each year to prepare and issue an exhaustive Housing Report showing in detail the progress of the work undertaken by the Town Council in their efforts to solve these problems, and the stage which the work had reached.

By specially written articles an endeavour was also made to keep the members of the Town Council well informed regarding the latest legislation promulgated by each successive Government, and to focus their attention primarily to the necessity of Slum Clearance and House Building being carried on simultaneously and expeditiously; also, by other articles, more of a reasoning and constructive than a

critical nature, we strove to reveal without fear or favour, the dreadful conditions in which many of our working class people lived—homes of discomfort, discontent, and disease; and directed in plain and unmistakable language the way to the only humane alternative, the complete eradication of all such houses and the erection in their stead of a sufficiency of modern houses as speedily as possible—homes of comfort, contentment, and health.

This year, however, for reasons which are obvious, it has been decided to depart from that practice, and to incorporate (in the Annual Report on the work of all branches of the Department) under the heading “ **Housing** ” a record of the work done during the year under the Housing Acts, of the Improvement and Clearance Areas to date, and of the progress made in house production.

The tale unfolded, except for a few explanatory notes inserted where considered necessary and advisable, is revealed by figures, and if, as is sometimes said, figures often better than words tell the story of efforts made, then the tables here submitted are indeed a narrative of disappointments and hopes deferred, and, paradoxically, of splendid achievement and aspirations fulfilled.

TABLE I.

The following figures show the number of houses which have been provided (by the Corporation and by Private Enterprise) during 1931 :—

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
By the Corporation ....	—	144	234	—	378
By Private Enterprise ....	—	1	8	82	91
By Fleming Trust (Gift of Robt. Fleming, Esq., LL.D.) ....	80	32	84	—	196
By the Peter Gray Housing Trust	24	—	—	—	24
					—
			Total	....	689

This total of 689 new houses furnished during one year appears to be a very handsome contribution towards the solving of our Housing Problems; I say, appears to be, advisedly, because against these figures we have to record a total of 418 houses which have been Closed by Order, Demolition Order, Voluntarily Closed or converted into business premises, etc., during the year, and, except for a few, all are unfit for human habitation.

TABLE II.

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
(a) Voluntarily—houses generally in very bad repair, very damp, and not reasonably fit for human habitation ....	8	12	3	12	35
(b) Converted into business pre- mises, offices, shops, or work- shops, etc. ....	6	3	2	2	13
(c) For Street Improvement ....	—	—	—	2	2
(d) By absorption into other houses ....	9	9	6	7	31
(e) Closed by Order or Demolition Order ....	63	142	26	13	244
(f) Closed by Undertaking ....	16	10	—	2	28
(g) Housing Sites, etc. ....	2	2	5	2	11
(h) Clearance Arcas (18)—1st In- stalment ....	31	18	3	2	54
	—	—	—	—	—
Total ....	135	196	45	42	418

It will be observed, of the 689 houses provided for the year—the Fleming Trust, the Peter Gray Trust, and Private Enterprise contributed 311, and the Corporation 378.

As the type of house (mainly owner-occupier) erected by Private Enterprise is beyond the income of the people with whom in the main we have to deal; the Peter Gray Trust houses in occupation, and the Fleming Trust Scheme nearing completion, we must for the future look almost wholly to the Town Council for an annual supply of houses sufficient to meet our needs.

What these needs are have already been estimated and are shown later in the Report. Meanwhile, just to ascertain how the Corporation House Building Schemes have progressed since 1919, when the first instalment of houses was provided, the two following tables are submitted:—Table III. embraces the locus of the Schemes, the number of houses completed and in the course of construction, and those contemplated but not yet contracted for; while Table IV. gives the number of houses completed and occupied each year.

TABLE III.

Scheme.	Area in Acres.	Occupied Houses. Rooms.				In Course of Construction. Rooms.			
		1	2	3	4 & over	1	2	3	4 & over
Logie ....	20·243	—	96	166	—	—	—	—	—
Hospital Park ....	10·33	—	52	100	—	—	—	—	—
Stirling Park ....	9·67	—	—	136	—	—	—	—	—
Taybank ....	15·82	—	—	180	—	—	—	—	—
Bro. Ferry, Forthill	13·30	—	68	140	—	—	—	—	—
Dudhope ....	12·59	—	70	120	—	—	—	—	—
Craigiebank ....	25·00	—	—	204	76	—	—	—	—
Strathmore Ave. and Johnston Ave. ....	4·44	—	—	—	26	—	—	—	—
Johnston Ave. & W. Cleington Rd. ....	4·12	—	—	—	26	—	—	—	—
Alpin Road ....	14·71	—	52	164	—	—	—	—	—
Lawton ....	16·69	—	—	264	—	—	—	—	—
Alpin Rd. & Strath- more Ave. (Steel Houses) ....	1·5	—	—	21	—	—	—	—	—
Strathmore Avenue (Tenements) ....	2·16	—	—	54	—	—	—	—	—
Byron Street (Tene- ments) ....	2·7	—	36	48	—	—	—	—	—
Lawton (" Boot " Houses) ....	19·08	—	—	264	—	—	—	—	—
Graham St. (" Boot " Houses) ....	17·04	—	—	236	—	—	—	—	—
Corso Street ....	9·79	—	36	156	24	—	—	—	—
Arklay Street ....	21·7	—	252	252	—	—	—	—	—
Harefield ....	1·2	—	12	8	—	—	—	—	—
Lawton Farm ....	1·07	—	12	8	—	—	—	—	—
Easter Cleington— Fleming Trust ....	21·00	128	48	92	—	64	110	54	—
Wester Cleington— Closing Orders ....	9·33	—	90	138	—	—	—	—	—
Caird Avenue ....	·25	—	6	—	—	—	—	—	—
Small's Wynd Scheme ....	11·25	—	—	—	—	—	96	150	—
Tullideph Road ....	4·87	—	18	12	—	—	24	24	—
Corso Street ....	3·33	—	30	54	—	—	—	—	—
Law Crescent ....	15·12	—	—	—	—	—	64	192	—
Queen St., B. Ferry	1·1	—	—	—	—	—	6	24	—
Sandeman Street ....	9·35	—	—	—	—	—	—	80	90



*Not yet Contracted for.*

		Rooms.							
		2		3	4				
Small's	Wynd								
Scheme (Site) ....		—	—	12	12	—	—	—	—
Sandeman	Street								
Extension ....		—	—	—	32	—	—	—	—
Wester Clepington—									
Clepington Rd. ....		—	—	36	60	—	—	—	—
Moncur Cres. ....		—	—	36	—	—	—	—	—
Wedderburn St.		—	—	20	32	—	—	—	—
Hepburn St. (1924)		—	—	—	10	—	—	—	—
Ann Street (1924) ....		—	—	4	4	—	—	—	—

TABLE IV.

*Provided by The Town Council.*

			2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
1919	....	....	72	—	—	72*
1920	....	....	44	150	—	194*
1921	....	....	96	132	4	232
1922	....	....	—	252	—	252
1923	....	....	—	16	—	16
1924	....	....	8	50	4	62
1925	....	....	22	86	94	202
1926	....	....	76	287	26	389
1927	....	....	86	887	—	973
1928	....	....	114	325	—	439
1929	....	....	240	310	—	550
1930	....	....	—	30	24	54
1931	....	....	144	234	—	378
Total			902	2,759	152	3,813*

\*These figures include 76 wooden huts erected in 1919-20.

The above table shows 3,813 houses have been provided by the Corporation, or an average of 293 house per annum for the past 13 years. In a like period, however, as shown in table V., a number of houses have disappeared from use as such through being Voluntarily Closed, Closed by Order, Demolished, or converted into business premises, etc.

TABLE V.

			1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
1919	....	....	36	52	9	15	112
1920	....	....	27	22	3	5	57
1921	....	....	20	6	1	2	29
1922	....	....	17	21	4	6	48
1923	....	....	36	27	8	12	83
1924	....	....	25	20	10	15	70
1925	....	....	8	12	9	12	41
1926	....	....	35	36	6	10	87
1927	....	....	95	41	6	19	161
1928	....	....	48	57	18	12	135
1929	....	....	145	117	10	23	295
1930	....	....	53	49	26	22	150
1931	....	....	135	196	45	42	418
Total			680	656	155	195	1,686

This total of 1,686 houses which have gone out of use as such during these years gives an average of 129 per annum, against 3,813 provided or 293 per annum, and if we deduct the former figures from the latter we find the net increase of houses to the City to be 2,127 or an average of 164 for each year of the period under review.

To arrive at the grand total of houses from all sources provided during these years, we must include those that have been repaired and reopened, shops, etc., converted into dwelling-houses, and large houses being sub-divided (Table VI.), as also those obtained through the beneficence of the Fleming and Gray Trusts (Table VII.), and by Private Enterprise (Table VIII.).

TABLE VI.

			1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
1919	....	....	14	67	11	7	99
1920	....	....	8	16	8	8	40
1921	....	....	4	1	1	2	8
1922	....	....	3	13	5	4	25
1923	....	....	6	5	3	4	18
1924	....	....	5	17	5	9	36
1925	....	....	9	10	4	6	29
1926	....	....	3	6	1	3	13
1927	....	....	1	12	2	3	18
1928	....	....	4	15	2	4	25
1929	....	....	9	10	7	12	38
1930	....	....	2	21	5	12	40
1931	....	....	4	15	5	14	38
Total			72	208	59	88	427

TABLE VII.

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
By Fleming Trust (Gift of Robt. Fleming, Esq., LL.D.) ....	128	48	92	—	268
By the Peter Gray Housing Trust	24	—	—	—	24
				Total ....	292

TABLE VIII.

*By Private Enterprise.*

	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
1919 ....	—	—	5	5
1920 ....	—	1	1	2
1921 ....	—	27	15	42
1922 ....	—	5	20	25
1923 ....	1	4	51	56
1924 ....	—	2	101	103
1925 ....	—	13	74	87
1926 ....	2	172	181	355
1927 ....	—	263	95	358
1928 ....	—	12	114	126
1929 ....	—	9	77	86
1930 ....	—	3	88	91
1931 ....	1	8	82	91
Total ....	4	519	904	1,427

These three tables together give the sum of 2,146, which figure added to 3,813—the Corporation's quota, makes a grand total of 5,959 houses provided during the past 13 years—or an average of 458 houses per annum ; deducting the 1,686 houses which have gone out of use during these years, gives us 4,273 additional houses within the City, equal to an average annual contribution of 328.

Already we have referred to :—

(a) *The Fleming Trust Scheme—*

The gift of some 496 dwelling-houses, viz. :—

192 Single Apartments.

158 Two Apartments, and

146 Three Apartments,

has provided this year 196 dwelling-houses, which added to last year's figure 72, makes a handsome contribution of 268 additional dwelling-houses, and

(b) *The Peter Gray Housing Trust—*

A scheme of 24 single apartment houses completed and now in occupation.

These have been inspected on several occasions and it is with the greatest pleasure we testify to the very fine condition in which they are being kept, and the highly appreciative expressions of thankfulness made regarding the donors by these fortunate housewives.

We now come to :—

### Housing Requirements.

Last year in the Annual Report on *Housing* there was shown in detail a list of insanitary and unhealthy houses and areas within the City, involving some 3,202 houses, which formed the basis of the Return made to the Department of Health for Scotland in terms of the Housing (Scotland) Act, 1930, as estimating the number of houses required during the next three years to meet the needs of the City.

The figures furnished by the Corporation to the Department are under headings (a), (b), and (c), viz. :—

708 houses to be built annually for the next three years (a) consequent on Demolition or Closing of houses, and (b) to abate Overcrowding, and

300 houses to be built annually for the next three years (c) to meet the normal growth of population.

---

1,008 total houses to be erected by the Town Council annually for the next three years.

There are schools of opinion declaring we have reached the stage when the provision of houses by the Corporation should cease and Private Enterprise allowed to attend to the needs of the future. In certain quarters this belief is advanced with a great deal of conviction, but it is not conviction that is the outcome of being in possession and having a complete knowledge of the conditions under which some of our unfortunate townspeople exist—they don't live—they merely exist, how some of them survive is hard to tell.

I do not altogether blame the people who express themselves strongly about our *Housing Needs* being already met and the time arrived for *Finis* being written.

It is a common failing all have—passing opinions on subjects with which they are unacquainted. One feels sure, however, if these people really knew, saw for themselves, they would at once reverse their opinion, induced by a feeling of sheer humanity, and become staunch supporters of the housing programme in its entirety.

One aspect of the serious state of affairs through lack of houses is *Overcrowding*, the ground of so much concern to the responsible officials. Overcrowding may be sub-divided to show the following types :—

1. Simple Overcrowding.
2. Overcrowding and lack of sex separation.
3. More than one family to a house.

*Simple Overcrowding.*—Visualise a three roomed house with twelve inmates ; father, mother, six sons, and four daughters. This house is definitely overcrowded but without the sex complex, as the parents could occupy one room, the sons huddle together in another, and the daughters likewise in the third—simple overcrowding and bad enough. Consider the second phase—*Overcrowding and lack of Sex Separation*. Continuing with the same family and sex incidence, housed this time in a two or indeed in a one roomed dwelling ; here enters the grave feature of sex separation which is most undesirable and unpleasant to dwell upon.

Now look to the third form of Overcrowding—*the occupation of a house by more than one family*. This is productive of overcrowding of types 1 and 2—the second being specially fraught with danger, as instance a case discovered in the Blackness Road district where in one house of two rooms of 2,672 cubic feet capacity two families and one lodger were found in occupation—in all, 15 persons, i.e. one family of 7 persons comprising a mother 45 years, one son 18, two daughters 23 and 21, and three grand-daughters 13, 4, and 1 years ; and in the other room, one family of 7 persons, viz. :—the mother aged 43, 5 sons aged 23, 21, 17, 14, and 14, and one female lodger aged 36 years. The house was overcrowded to the extent of  $7\frac{1}{2}$  persons, i.e. based on a cubic feet standard—no sex separation possible. Rent 5/- per week and combined income stated at £6. 12s.

Here is reproduced a photo showing the interior of a 1 roomed house, overcrowded by the members of one family. The ingenuity of the tenant's efforts at providing sleeping accommodation aptly







confirms the adage "Necessity is the Mother of Invention." Having a very limited floor space he got over the difficult problem of providing sufficient sleeping accommodation by placing one 6 feet by 4 feet iron bedstead on the top of a similar one—bunk fashion. The method employed was to remove the four brass knobs from the lower bed and the four casters from the upper bed, thus allowing the frames to fit into one another. To keep the top bed rigid he wedged a wooden stay between the bed and the wall. Lace curtains, an attempt at decoration, somewhat conceal the beds.

In the lower bed sleep the tenant and wife with their infant son, while the upper bed is occupied by the three elder girls. A cot is provided for the youngest girl.

Other furniture in the house consists of a kitchen dresser, a table, and four chairs, while a bicycle is "garaged" between the beds and the wall.

The house is damp and overcrowded to the extent of  $2\frac{1}{2}$  adults—cubic feet standard.

The house has a cubic capacity of 1,270 feet and a floor area of 149 square feet. The inhabitants are husband and wife, 4 daughters ages ranging from 3 to 13 years, and an infant son of 13 months.

Their income is £2 per week and the rent 2s. 2d. weekly.

The house was Closed by Order on 22/8/29, and Notice to Remove served on tenant on 16/9/29, who has only obtained other and more adequate accommodation within recent months.

What is the cure for all this undesirability? The question may be phrased in many ways, but there is only one reply "*Provide more Houses.*" Restoration of the present houses—a plea often advanced—is in many instances impracticable as the buildings are either unsuited for reconditioning or not worth the financial expenditure.

The tables shown in the Report relative to progress made in Slum Clearance and new houses building to date, linked with those which show only a part of the work awaiting attention, will reveal the dire necessity for the continuance of the *Building Policy*, and to those whose opinion is still in the balance we would recommend a careful study of the figures, then assuredly their good wishes will be with those who struggle in this very laudable and uplifting process.

Money is the real foundation of this great undertaking, but in addition to houses the implied assurance of a Grade A race coming forward is potentially sound and an investment of high value.

Let us take a retrospective view. Plague, typhoid, and typhus fevers and small-pox which used to be prevalent in this country are now a rarity. How do we account for this immunity? Pure water supplies, proper drainage, water closets, and improved methods of sanitation and cleansing are amongst the factors to which are due our present happy state. It was all accomplished by the same means as we are bettering *Housing Conditions*—the expenditure of money. The provision of houses might well be included in “preventive medicine,” and if money is not spent on housing it will require to be laid out in clinics, hospital or sanatorium treatment, the real benefit of which is not derived if the patient has to return to the awful housing conditions obtaining in some parts, and to which frequently the breakdown in health is due.

### **The Sir James Caird Land Acquisition Fund—Marryat Bequest.**

The Town Council have agreed that the income accruing from the above Fund (£100,000) during the first ten years, be applied wholly to the acquisition of land in dense or slum areas, for the purpose of providing open spaces as playgrounds for the children of such neighbourhood, and for the provision of playing fields for the benefit of young people in like circumstances—all to be suitably laid out.

A property, comprising 9 one-roomed houses (one of which was Voluntarily Closed) and 3 two-roomed houses, situated in Blackness Road, had been earmarked to be dealt with as an insanitary building by the Local Authority. The owner died, and the property was placed on the market for sale. The opportunity was taken to acquire it for the Town—through this Fund—the ground, when vacant, to be used as an open space. The area is 20 poles and 12 yards or thereby.

Under this head there is nothing further to record this year.

### **Housing (Scotland) Act, 1925.**

THE DUNDEE (BLUE MOUNTAINS, ETC.) IMPROVEMENT SCHEME, 1925;  
CONFIRMATION ORDER, 1925, made by the Department of  
Health for Scotland under the Housing (Scotland) Act, 1925.

The work of the Sanitary Department, so far as this scheme is concerned, is completed. All the tenants have been removed to other accommodation, and the whole of the buildings demolished, excepting one joiner's workshop entered from Hunter Street, which the Housing Committee have unanimously decided not to purchase.

With regard to the remainder of the area now cleared of buildings, the Commissioner of the Department of Health for Scotland in his Report on the Area, expressed the emphatic opinion that "the best possible use to which the cleared area can be devoted will be for the purpose of an open space."

As this is tantamount to an instruction, the Town Council considered the question with the aid of plans prepared and submitted by the City Engineer, showing how the ground could be laid out as an open space, and provision made for the erection of ladies' and children's lavatories, a shop, and boundary walls and railings, subject to the approval of the Department of Health for Scotland.

The position at the moment is—the shop and boundary walls with railings, have been erected, and the work of levelling and laying out the ground is proceeding.

When completed, this will form not only a lung or breathing space for one of the densely populated parts of the City, but a safe playground for a large number of children resident in the neighbourhood.

THE DUNDEE (SMALL'S WYND) IMPROVEMENT SCHEME, 1928, CONFIRMATION ORDER, 1929, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

On 16th October 1926, the Medical Officer of Health represented certain areas in the Small's Wynd, Hawkhill, and West Port districts as being "dangerous or injurious to the health of the inhabitants of the buildings in the said Areas or of the neighbouring buildings."

At the beginning of the year 1929, a full Commission of the Department of Health for Scotland held a local enquiry, and towards the latter part of that year, the Town Council *received an Order, dated 17th September 1929*, confirming the Scheme, and stating "that the Local Authority shall, unless the Department of Health for Scotland otherwise consent, in writing, carry out and complete the improvements provided for in the Scheme, *within a period of five years from the date of the Order.*"

The Town Council appointed the District Valuer to carry through the negotiations with the owners for the purchase of the properties embraced in the Scheme, and this work is still proceeding.



The scheme embraces some 315 houses and 64 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
139	147	26	3	315

The position at the end of the year is as follows, viz. :—

Houses still in Occupation :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
87	116	21	—	224

This shows that only 91 houses have been vacated, which is unfortunate, because, since the scheme was approved of in 1929, very few repairs have been effected, and the dwelling-houses—at the time considered insanitary and unhealthy—are rapidly deteriorating into hovels of the worst description.

To re-house the tenants displaced from this scheme the Town Council approved of plans for the erection of 246 houses at Wester Clepington, viz. :—

96 two-roomed houses and  
150 three-roomed houses,

and the work is now well in hand—a large proportion of them will be occupied sometime during the summer of 1932.

### Insanitary Buildings.

Since the inauguration of the Post-War Housing Policy, adopted by the Town Council, for dealing with insanitary houses, buildings, and areas, 302 Representations have been made to the Local Authority for the Closing and Demolition of houses and buildings, the removal of Obstructive buildings, and the improvement or reconstruction of houses and buildings not in a reasonable state of repair; and 36 Representations made for the improvement of insanitary and unhealthy areas or groups of areas.

The total number of houses involved is 2,935, and the following tables show, in detail, the position as it stood at 31st December 1931 :—

Year.	No. of Representa- tions.	REPRESENTED. No. of Rooms.				Total Houses.	No. of other Premises
		1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.		
1924	1*	59	45	4	1	= 109	21
1925	17	53	24	1	1	= 79	5
1926	45	81	96	8	11	= 196	6
1926	1*	139	147	26	3	= 315	64
1927	44	175	108	29	—	= 312	—
1928	44	138	132	5	5	= 280	—
1929	63	135	187	26	10	= 358	—
1930	41	73	151	17	12	= 253	11
1930	18*	136	164	19	8	= 327	92
1931	14*	140	136	12	6	= 294	82
1931	1*	7	8	1	—	= 16	3
1931	1*	90	118	1	1	= 210	16
1931	48	47	117	14	8	= 186	—
338		1,273	1,433	163	66	=2,935	300

\* Improvement or Clearance Areas.

Of the 2,935 houses Represented :—

714 were closed and demolished.

598 were closed and are standing empty.

65 were closed and are now used as club-rooms, etc. (permission being granted by the Local Authority).

313 have been repaired or reconstructed.

1,073 are still in occupation, made up as follows :—

244 individual unfit houses.

224 Small's Wynd improvement scheme.

164 Clearance Areas (18)—1st Instalment.

257 Clearance Areas (14)—2nd Instalment.

4 Clearance Area—Queen Street (B.F.).

180 Blaekness Road (Cowden Knowes) Area.

---

1,073 Total.

117 are being dealt with by notices, and these are at present under, or negotiation for, repair.

41 the owners have given an undertaking to repair.

14 are under consideration by the Local Authority.

---

2,935

In addition to the above, two obstructive buildings have been demolished and the sites cleared.

### Housing (Scotland) Act, 1930.

This Act came into operation on the 1st August 1930, and the preamble states that it is :—" An Act to make further and better provision with respect to the clearance or improvement of unhealthy areas, the repair, demolition or closing of insanitary houses, and the housing of persons of the working classes in Scotland ; to amend the Housing (Scotland) Act, 1925, the Housing, etc., Act, 1923, the Housing (Financial Provisions) Act, 1924, and other enactments relating to subsidies ; and for purposes connected with the matters aforesaid."

The Department of Health for Scotland, on 3rd September 1930, issued an Explanatory Circular with reference to the Act, and the first part of the Introductory reads :—" This Act, which received the Royal Assent and came into operation on 1st August 1930, has for its main objects the demolition of insanitary houses in unhealthy areas and elsewhere, and the erection of new houses for the accommodation of persons displaced thereby."

The Medical Officer of Health and myself began in 1930 a systematic inspection of insanitary houses and areas within the City with the set purpose of Representing them to the Local Authority to be dealt with by repair notices, closing or demolition orders, and where suitable, improvement or clearance areas.

This work is still being proceeded with and the results up to date will be found in the following tables :—

#### Clearance Areas.

##### *(First Instalment.)*

The Medical Officer of Health prepared and submitted to the Local Authority an Official Representation, dated 30th June 1930, comprising 304 insanitary, etc., houses. The Representation was submitted to the Housing Committee Meeting, of date 22nd July 1930, and the Committee unanimously agreed to recommend the Town Council to pass a Resolution.

In the interval, viz., on 1st August 1930, the Housing (Scotland) Act, 1930, became operative, and, to comply with the terms of this Act, the Representation was submitted at the Housing Committee Meeting, of date 9th September 1930, when it was agreed to recommend the Town Council to pass a Clearance Resolution. The Corporation at their Meeting on 2nd October 1930, being satisfied as respects the Areas mentioned in the Medical Officer of Health's Representation, unanimously passed such a Resolution.

The Representation embraces some 18 areas situated in Wards 1, 4, and 5, and involves 304 dwelling-houses and 73 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
133	148	16	7	304

To develop the area and render it effective, the Director of Housing, in virtue of Section 3 of the Act, included other 23 houses and 19 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
3	16	3	1	23

Altogether, 327 houses are included, and of these, 18 were already Closed by Order and 10 Voluntarily, leaving 299 occupied houses with a population of :—

Males.		Females.		Total.
Adults.	Juveniles.	Adults.	Juveniles.	
340	117	380	133	970 Persons.

The position at 31st December is :—

*Houses still in Occupation.*

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
65	86	8	5	164

This shows 163 houses have been Closed or Demolished, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
71	78	11	3	163

It will be seen considerable progress has been made—50 per cent. of the houses having been Closed or Demolished. Regarding the provision of new houses to re-house the tenants displaced the Town Council decided that the houses being erected by the Fleming Trust at Easter Clepington should be utilised for this purpose.

*Queen Street, Broughty Ferry.*

An Official Representation, dated 24th February 1931, was submitted by the Medical Officer of Health involving four Areas in Queen Street, Broughty Ferry, Dundee, embracing 15 houses, viz. :—

1 Room.	2 Rooms.	Total.
7	8	15

and for the satisfactory development of the area there was included by the Director of Housing :—

1 three-roomed house and 3 other premises.

The Town Council at their Meeting held on 5th March 1931 considered the Representation, and after satisfying themselves that their resources were sufficient, did resolve and declare, in terms of Section 1 of the Housing (Scotland) Act, 1930, that the said Areas were Clearance Areas; and further, determined to purchase the land adjoining (including the buildings thereon), in terms of Section 3 of the Act.

Later, at the Housing Committee Meeting, of date 10th March 1931, plans were submitted by the Director of Housing showing 30 houses, viz. :—

6 two-roomed houses and  
24 three-roomed houses

which could be erected on the site. The Minutes of this Meeting were approved of by the Corporation on 2nd April 1931.

At the end of the year the site had been cleared sufficiently to enable the work of erecting the new houses to be proceeded with, and it is hoped by December 1932 the whole work will be completed.

*(Second Instalment.)*

An Official Representation was made by the Medical Officer of Health, dated 31st July 1931, comprising 14 Areas embracing 281 houses and 33 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
130	133	12	6	281

To satisfactorily develop these Areas, the Director of Housing, by virtue of Section 3 of the Act, included 13 houses and 49 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
10	3	—	—	13

Altogether 294 houses and 82 other premises are included, and of these, 37 are already Closed by Order or Voluntarily Closed, leaving 257 occupied houses with a population of 921 persons.

At 31st December this matter was still under the consideration of the Town Council,



### Blackness Road ("Gowden Knowes") Area.

The Medical Officer of Health submitted a Representation, dated 13th May 1931, involving 18 buildings in Blackness Road, Watson's Lane, and Wilkie's Lane—locally termed the "Gowden Knowes," in which "the housing conditions are injurious or dangerous to the health of the inhabitants by reason of the disrepair or sanitary defects of the dwelling-houses therein, and also by reason either of overcrowding in the area or of the narrowness or bad arrangement of the streets, and that those conditions can be effectively remedied without the demolition of all the buildings in the area, by taking two or more of the following steps, that is to say :—

- (i.) the execution of works on, or the demolition or closing of, those dwelling-houses which are unfit for human habitation ;
- (ii.) the demolition by the Authority after purchase of a building consisting partly of dwelling-houses which are unfit for human habitation and cannot at a reasonable expense be rendered so fit ;
- (iii.) the purchase by the Authority of any land which it is expedient for them to acquire for opening out the area, and if any buildings on that land have not previously been demolished, the demolition of those buildings so far as it is necessary to demolish them for that purpose ; and
- (iv.) the abatement of overcrowding in the area."

The area embraces 210 houses and 16 other premises, viz. :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Total.
90	118	1	1	210

Of that number 185 houses are occupied and 25 are Closed by Order or Voluntarily Closed.

This matter also is still under the consideration of the Town Council,

### Closing or Demolition Orders.

#### SECTION 16 (1).

31 Representations, involving 124 houses, were made to the Local Authority in terms of the above Section, viz. :—

37 one-roomed houses,  
 78 two-roomed houses,  
 5 three-roomed houses, and  
 4 four-roomed houses,

and these were disposed of as follows :—

Demolition Orders were served upon the owners of 68 houses,  
 viz. :—

18 one-roomed houses,  
 45 two-roomed houses,  
 3 three-roomed houses,  
 2 four-roomed houses.

One owner gave an undertaking, in writing, to close two rooms of a four-roomed house, and

four owners gave undertakings to repair 41 houses, viz. :—

14 one-roomed houses,  
 24 two-roomed houses,  
 2 three-roomed houses, and  
 1 four-roomed house,

while 14 houses are under the consideration of the Local Authority,  
 viz. :—

5 one-roomed houses,  
 8 two-roomed houses, and  
 1 four-roomed house.

### **Repair Notices.**

#### **SECTION 14.**

17 Representations, involving 62 houses, were made to the Local Authority in terms of the above Section, viz. :—

10 one-roomed houses,  
 39 two-roomed houses,  
 9 three-roomed houses, and  
 4 houses of four or more rooms.

The owners of 22 houses, viz. :—

7 one-roomed houses,  
 14 two-roomed houses, and  
 1 three-roomed house,

requested in terms of Section 17 that Demolition Orders be substituted, and the Local Authority agreed.

## Summary in regard to Housing conditions and alterations during 1931.

### I.—Particulars of Houses (142) Improved :—

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
(a) At properties that had been " Closed by Order " for a period ....	—	6	—	—
(b) At instance of Sanitary Inspector, but not " represented " to Committee	21	60	7	6
(c) After Plans had been submitted to and approved of by the Works Committee ....	—	1	—	14
(d) Two or more houses made into one ....	2	5	4	7
(e) Houses divided and improved ....	—	2	1	5
(f) Houses improved under Section 14 Housing (Scotland) Act, 1930 ....	—	1	—	—

### II.—Shops and other premises converted into dwelling-houses (38) during 1931 :—

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
(a) 1 Store ....	1	—	—	—
(b) 4 Theatre Dressing Rooms ....	—	—	—	1
(c) 1 Part of Warehouse ....	—	1	—	—
(d) 1 Business Premises ....	—	1	—	—
(e) 1 Shop ....	1	—	—	—
(f) 1 Girls' Hostel ....	—	—	—	1
(g) 6 Houses that had been Closed by Order or Demolition Order ....	—	6	—	—
(h) 27 Houses made into Eighteen ....	2	5	4	7
(i) 4 Houses divided into Eight ....	—	2	1	5

### III.—New Houses completed and ready for occupation during the year 1931 :—

#### (a) UNDER THE CORPORATION HOUSING SCHEMES.

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
Wards 3 and 8 (Tullideph) ....	—	18	42	—
Ward 5 (Fleming Trust) ....	80	32	84	—
Ward 7 ....	—	96	138	—
Ward 9 ....	—	30	54	—

Total, 574 houses.

## (b) BY PRIVATE ENTERPRISE.

					1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
Ward	1	....	....	....	—	—	—	12
	2	....	....	....	—	—	4	3
	3	....	....	....	—	—	—	3
	4	....	....	....	—	—	—	11
	5	....	....	....	—	—	—	3
	6	....	....	....	—	—	—	—
	7	....	....	....	*24	—	1	20
	8	....	....	....	—	1	1	4
	9	....	....	....	—	—	—	4
	10	....	....	....	—	—	—	1
	11	....	....	....	—	—	2	21

Total, 115 houses.

\*The Peter Gray Housing Trust.

Giving a grand total of 689 new houses erected throughout the year.

## IV.—Particulars of dwelling-houses Closed (418) for human habitation during the year 1931 in whole or in part :—

					1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
(a)	Voluntarily—houses generally in very bad repair, very damp, and not reasonably fit for human habitation				8	12	3	12
(b)	Converted into business premises, offices, shops, or workshops, etc. ....				6	3	2	2
(c)	For Street Improvement ....				—	—	—	2
(d)	By absorption into other houses ....				9	9	6	7
(e)	Closed by Order or Demolition Order				63	142	26	13
(f)	Closed by Counter Notice or Undertaking ....				16	10	—	2
(g)	Housing Sites, etc. ....				2	2	5	2
(h)	Eighteen Clearance Areas—1st Instalment ....				31	18	3	2
					—	—	—	—
	Total				135	196	45	42

## V.—Dwelling-houses Demolished (302) during the year 1931 :—

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
(a) Dwelling-houses that had been closed by order or demolition order ....	65	136	16	11
(b) Dwelling-houses that had been closed voluntarily ....	1	1	—	1
(c) Street Improvement ....	—	—	—	2
(d) Business Extension ....	1	7	1	—
(e) Housing Sites, etc. ....	5	8	6	4
(f) Eighteen Clearance Areas—1st Instal- ment ....	24	9	3	—
(g) Small's Wynd Improvement Scheme	—	1	—	—
	—	—	—	—
Total ....	96	162	26	18

In addition to the above, 64 other premises were demolished, viz. :—

1 Shed.	11 Offices.	3 Lavatories.
1 Studio.	4 Workshops.	1 Part of Bank.
2 Cellars.	17 Stores.	1 Prison Buildings.
1 Pigeon-House.	13 Shops.	
6 Stables.	3 Dairy Premises.	

## VI.—Net Results for 1931 :—

The net result for the year is that there are 309 more houses available for human habitation than at 31st December 1930, i.e. houses of :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
27 less.	4 less.	286 more.	54 more.

## VII.—The total number of Dwelling-houses (Private and Corporation) in course of erection (1,040)—all stages—at 31st December 1931 is as follows :—

	1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.
Ward 1 ....	—	—	—	12
„ 3 and 8 (Tullideph) ....	—	24	24	11
„ 4 ....	—	—	—	11
„ 5 ....	64	110	134	92
„ 7 ....	—	160	349	7
„ 8 ....	—	—	—	1
„ 10 ....	—	6	24	—
„ 11 ....	—	—	—	11
	—	—	—	—
Total ....	64	300	531	145



**VIII.**—Estimated Number of Inhabited Houses of not more than 24 rooms within the Burgh of Dundee as at 31st December 1931—corrected (added to and deducted from). Based on Census Return of April 1921, viz.:—42,202 houses.

The Registrar-General's figures for the Census Year 1931 are not yet to hand.

Year. From Census Return	1 Room. Add. Deduct. 6,650 or 15·76%.		2 Rooms. Add. Deduct. 21,843 or 51·76%.		3 Rooms. Add. Deduct. 7,538 or 17·86%.		4 Rooms and over. Add. Deduct. 6,171 or 14·62%.		Total. 42,202
1921 ....	—	16	91	—	159	—	19	—	253
1922 ....	—	14	—	8	258	—	18	—	254
1923 ....	—	30	—	21	15	—	43	—	7
1924 ....	—	20	5	—	47	—	99	—	131
1925 ....	1	—	20	—	94	—	162	—	277
1926 ....	—	32	48	—	454	—	200	—	670
1927 ....	—	94	57	—	1,146	—	79	—	1,188
1928 ....	—	44	72	—	321	—	106	—	455
1929 ....	—	134	131	—	316	—	66	—	379
1930 ....	—	3	—	12	20	—	102	—	107
1931 ....	—	27	—	4	286	—	54	—	309
<hr/>									
	1	414	424	45	3,116	—	948	—	46,232
Thus giving at 31st Dec. 1931—									
	6,237		22,222		10,654		7,119		
	or 13·49%		or 48·06%		or 23·05%		or 15·40%		

**IX.**—The Official Return submitted to the Department of Health for Scotland for the year ended 31st December 1931 is :—

#### Housing (Inspection of District) Regulations (Scotland) 1928.

1. Number of dwelling-houses inspected	....	....	754
2. Number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	....	....	709

#### Housing (Scotland) Act, 1925.

3. Number of cases where intimations were given under Section 20 (1) as to insufficient water closet accommodation :—	These provisions do not apply in Burghs.
(a) cases where requirements complied with by owners	
(b) cases where works carried out by Local Authority after failure of owners to do so     ....     ....     ....	
(c) cases still pending     ....     ....     ....     ....	

4. Number of houses of (a) one-apartment, and (b) two-apartments, for the erection of which the consent of the Local Authority has been given in terms of	(a)	Nil.
Section 111	(b)	1

### Housing, Town Planning, Etc. (Scotland) Act, 1919.

5. Number of cases where notices were served under Section 40 (1) to provide dwelling-houses with water supply :—	These provisions do not apply in Burghs.	
(a) cases where requirements complied with by owners		
(b) cases where works carried by Local Authority after failure of owners to do so		
(c) cases still pending		

### Housing (Scotland) Act, 1930.

6. Number of dwelling-houses in respect of which notices were served under Section 14 (1)		62
7. Number of dwelling-houses rendered fit for human habitation following on notices under Section 14 (1)		1
8. Number of dwelling-houses in respect of which work has been done by the Local Authority under Section 15 (1)		Nil.
9. Number of dwelling-houses in respect of which in terms of Section 17 a demolition order or closing order under Section 16 (3) has been substituted for a notice under Section 14 (1)		22
10. Number of dwelling-houses in respect of which notices were served in terms of Section 16 (1)		124
11. Number of dwelling-houses referred to in 10 :—		
(a) which have been rendered fit for human habitation	(a)	Nil.
(b) in respect of which undertaking has been given that the house will not be used for human habitation until it has been rendered so fit	(b)	3
(c) in respect of which demolition orders* have been made under Section 16 (3)	(c)	99
(d) in respect of which closing orders have been made under Section 16 (3) and (4)	(d)	Nil.
12. Number of dwelling-houses in respect of which closing orders have, in terms of Section 16 (3), been determined by the Local Authority, following upon the houses having been rendered fit for human habitation		1

13. Number of houses in respect of which advances have been made in terms of Section 34 towards cost of repairs and amount so advanced	....	....	....	Nil.
--	------	------	------	------

\*If permission to reconstruct a building has been granted, the number of houses existing prior to the reconstruction should be stated (see in this connection, sub-section (3) of Section 49 of the Housing (Scotland) Act, 1930).

*Note.*—Any general information or observations as to the character of defects usually found to exist, as to the extent to which overcrowding was found to prevail and the steps taken to remedy it, or as to the work of inspection generally, should be entered in the space below :—

Inadequate lighting and ventilation ; dampness in house ; houses not provided with sinks and inside water supplies ; insufficient water closet accommodation ; want of suitable storage for foodstuffs and fuel ; insufficient ashpit or ashbin accommodation ; lack of facilities for the washing and drying of household and wearing apparel ; and open spaces around buildings restricted.

Instances of overcrowding, fairly well all over the city, are frequently met with, and it may be said that overcrowding is still in evidence. Efforts are made to cope with the situation by securing houses, suitable, if at all possible, for the occupiers of such overcrowded houses.

### **The Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1925.**

(a) *The Increase of Rent and Mortgage Interest (Restrictions) Act, 1920.*

When this Act came into force on 2nd July 1920, Section 2 (2) empowered any tenant or the Local Authority to apply to the Sheriff Court for an order suspending any increases to rent permitted by paragraphs (d) and (e) of Section 2, Sub-section 1.

The Court had to be satisfied by the production of a Certificate of the Local Authority that the house is not in all respects reasonably fit for human habitation, or otherwise not in a reasonable state of repair. On being satisfied the Court orders the said increases to be suspended until satisfied by a Report from the Local Authority that the repairs had been executed.

*The foregoing meant that the Tenant or Local Authority were required to take Proceedings against the Landlord ; and pay the usual Court Fees.*

During the years 1920, 1921, and 1922, 104 applications for Certificates were made, and, of the 94 granted, only one tenant took Court proceedings, and was successful; one owner sued the tenant who produced the Certificate of the Local Authority. The tenant was successful in having the increases deducted; three owners agreed to reduce the rents of the houses of three tenants who had obtained Certificates of the Local Authority; none of the 89 other tenants took any action.

(b) *The Rent and Mortgage Interest Restrictions Act, 1923.*

On 31st July 1923, this Act came into force; and along with the 1920 Act are cited together as the Rent and Mortgage Interest Restrictions Acts, 1920 and 1923.

By Section 5 (1) of the later Act, the tenant serves a copy of the Local Authority's Certificate on the Owner and reduces his rent automatically. The landlord, if he disagrees, must take the question into Court, paying the usual court fees.

*This means the onus is now upon the owner.*

The following tables show the number of applications made under the Rent and Mortgage Interest Restrictions Acts, 1920 and 1923, and how disposed of :—

Year.	By Tenants.			By Owners.		
	No. of Applications.	Granted.	Refused.	No. of Applications.	Granted.	Refused.
1920	85	79	6	—	—	—
1921	17	14	3	—	—	—
1922	2	1	1	—	—	—
1923	5	3	2	1	1	—
1924	3	2	1	—	—	—
1925	4	3	1	—	—	—
1926	11	8	3	—	—	—
1927	17	16	1	3	3	—
1928	5	4	1	1	—	1
1929	1	1	—	1	1	—
1930	8	7	1	4	4	—
1931	2	2	—	1	1	—
	160	140	20	11	10	1



The total number of applications granted (140) were disposed of as follows :—

- 61 Houses were repaired.
- 23 Tenants removed to other accommodation.
- 14 Owners agreed to reduce the rents without Court proceedings.
- 10 Houses were Closed by Order and the rents reduced.
- 10 Houses were included in Slum Clearance Areas.
- 6 Houses were closed and demolished.
- 4 Houses were Voluntarily Closed.
- 3 Tenants had new Certificates issued under the 1923 Act conditions.
- 2 Houses had been de-controlled, and did not come under the Act.
- 2 Owners took Court proceedings and were unsuccessful.
- 3 No action taken by tenant.
- 1 Tenant took Court proceedings and was successful.
- 1 Tenant withdrew application.

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140

(c) *The Rent and Mortgage Interest (Restrictions Continuation) Act, 1925.*

*Action taken by the Local Authority.*

The Public Health Committee at their Meeting held on 10th February 1927 agreed to “remit to the Town Clerk and the Chief Sanitary Inspector to take steps where desired and required to ensure that the increases permitted by the Rents Restrictions Acts, and applied to a house which is not in a reasonable state of repair or unfit for human habitation, are suspended until the house has been put in a reasonable state of repair.”

This resolution was confirmed at the Town Council Meeting held on 3rd March 1927 ; since then, and where it was deemed expedient the Housing Committee acting under the powers conferred by the foregoing resolution have at their Meetings instructed “the Town Clerk and Chief Sanitary Inspector to apply to the Sheriff in terms of the Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1925, for a suspension to the increases to the rents.”

Under this heading, 718 tenants have had their rents reduced to pre-war standard, plus 5·23 per cent., and 124 tenants who were being charged illegal rents have had them corrected since 1927, when the above-mentioned instruction was first given.



### Tents and Vans.

The piece of ground known as the Gussie Park, situated in the north end of the City, was purchased by an Entertainments Caterer and has been in occupation as wintering quarters since the late autumn. The conduct of the colony has been highly satisfactory, only one complaint reaching the Department and that of a trivial nature. Apart from this settlement there have been a few temporary sojourns of vans in various districts within the City which gave no cause for official interference.

96 visits of inspection were made under this head during the year.

### Housing of Seasonal Outworkers.

This class of employment within the City is very small, the majority of the workers so employed return to their homes within the City at night.

The Bye-laws have been strictly adhered to.

### Common Lodging-Houses.

In the supervision of these places 386 visits were made by day and 8 by night. Occasionally slight irregularities were discovered—nothing of a serious character falling to be dealt with. The keepers of these places are sufficiently alive to the requirements of the Bye-laws governing their houses and every effort is made to keep within the law, and any undesirables are soon made to move on.

The accommodation, details of which are undernoted, has not been fully taxed at any time of the year.

55 Commercial Street	....	....	....	242 Lodgers.
3/5 Craig Street	....	....	....	137 „
19 Overgate ....	....	....	....	38½ „
43 Overgate ....	....	....	....	43 „
25 North Lindsay Street	....	....	....	56½ „
*130 Overgate ....	....	....	....	38 „
*77 Overgate ....	....	....	....	34 „
*97 Overgate ....	....	....	....	91 „

(Those marked \* have accommodation for both male and female lodgers.)

THE SEAMEN'S BOARDING HOUSE (DUNDEE SAILORS' HOME AND HOSTEL) AND THE SALVATION ARMY HOME AND METROPOLE FOR WOMEN are well kept—clean and comfortable, the former also now being available for commercial “boarders.”

### Houses Let in Lodgings.

On the Register at the end of the year there were 93 Houses Let in Lodgings, to which 193 visits were made by day and 267 by night. This does not represent the whole of the houses within the Burgh where lodgers are kept ; a number on the higher scale are not included for purposes of registration, their maintenance being such that inspection periodically by this Department would be unwarranted. What we are concerned with is the lower grade houses—those just outwith the Common Lodging-House class, where regular visits of inspection are necessary. It is in this type of house one looks for, and discovers, sex intermingling and overerowding—both of which are still prevalent in the more congested parts of the City. Otherwise those houses have been satisfactorily conducted, regularly cleaned and the Bye-laws thereanent regarded.

### Factories and Workshops.

In the carrying out of the legislation governing Factories and Workshops 1,253 visits of inspection were made by the Officers of the Department. Little falls to be recorded in connection with them as on the whole those places are well maintained. On occasions there might be slight laxity in the carrying out of lime-washing and thorough cleaning, but after a little persuasive effort on the part of the District Inspector these little deficiencies are soon remedied.

2 notices under Section 29 of the Public Health (Scotland) Act, 1897, were served on the Occupier and Owner respectively of a mason's yard where the only convenience for the use of the 5 employees there was a dry pail privy. At the end of the year this matter was still under weigh and had not been satisfactorily complied with, but hopes are entertained for an early settlement.

19 nuisances discovered have all been abated.

In addition, 2 reports were received from H.M. Inspector of Factories calling our attention to defects discovered in the course of his perigrinations, viz. :—

Ventilation of workshop defective. An additional ventilator was provided which adequately ventilated the premises.

One water closet for the use of both sexes. The difficulty was overcome by an arrangement whereby the male employees used a separate water closet.

The following Workshops, &c., are upon the Register at 31st December 1931 :—

## TRADE OR BUSINESS.

	Workshops	Domestic Workshops	Homework	Workplaces.
Blacksmiths, Cartwrights, and Carriage Builders ....	18	0	0	0
Boot Repairers ....	79	10	0	0
Cabinetmakers, Joiners, and French Polishers ....	57	0	0	0
Cycle and Motor Mechanics, Enamellers, and Vulcanisers ....	26	0	0	0
Dental Mechanics ....	28	10	0	0
Dress, Mantle, and Corset Makers ....	39	29	0	0
Engineers ....	3	0	0	0
Electro-Platers, Wire Workers, Blind Makers, and Bellhangers ....	8	0	0	0
Florists ....	0	0	0	10
Furriers ....	6	0	0	0
Granite and Marble Cutters and Masons ....	0	0	0	32
Hairdressers and Wigmakers ....	1	2	0	107
Hotels and Restaurants ....	0	0	0	43
Milliners ....	31	1	0	0
Painters ....	0	0	0	54
Photographers ....	12	0	0	0
Piano and Gramophone Repairers ....	9	0	0	0
Picture Framers, Gilders, and Glaziers ....	8	0	0	0
Plasterers ....	0	0	0	17
Plumbers and Tinsmiths ....	54	0	0	0
Saddlers and Leather Cutters ....	14	0	0	0
Slaters ....	0	0	0	21
Stamp Cutters, Engravers, and Ticket Writers ....	6	0	0	0
Sugar Boilers ....	6	0	0	0
Tailors ....	59	11	2	0
Umbrella Makers and Repairers ....	5	0	0	0
Underclothing, Baby Linen, and Blouse Makers, Hosiers and Knitters ...	30	2	0	0
Upholsterers and Carpet Sewers ....	18	0	0	0
Waste, Rag, and Metal Merchants ....	0	0	0	13
Watch and Jewellery Repairers and Opticians ....	38	3	0	0
Miscellaneous, i.e., Gut Manufacturer, Mica Makers, Clay Pipe Makers, Paper Bag Makers, Bottlers, Potted Meat Manufacturers, Oil Refiners, Manufacturing Chemists, Sack Repairers, Laundries, Basket Makers, Brush Makers, Scale Makers, &c. ....	50	3	0	15
Totals ....	605	71	2	312

**Bakehouses.**

The following bakehouses are upon the Register :—

Occupied factory bakehouses	....	....	....	56
(Included in this number are 6 underground.)				
Occupied workshop bakehouses	....	....	....	31
(Included in this number are 4 underground.)				
Bakehouses empty but fit for occupation	....	....	....	6

The smaller type of workshop bakehouse is slowly disappearing, and in 1931 some seven were closed down and not likely to be reopened for business as such.

In one factory bakehouse an extensive and ambitious improvement scheme was started in the latter part of the year and when completed will make this bakehouse one of the finest in the City.

The lime-washing obligation did not quite meet with our approbation in several cases, the work being done in a perfunctory manner, and in two instances a notice under Section 99 of the Act of 1901 had to be served on the defaulting owners, and thereby the irregularity was overcome in both cases in due course.

All over, these places have been kept in a satisfactory condition throughout the year.

For securing the welfare of the workers employed in bakehouses the district inspectors have urged on employers the fulfilment of the terms of The Bakehouses Welfare Order of 1927.

Throughout the year to Factory and Workshop premises 1,133 visits were made.

**The Milk and Dairies (Scotland) Acts ; and Orders.**

*Registers.*—At the end of the year the Registers stood as follows :—

Dairymen or Cow-Keepers	....	....	....	....	37
Retail Purveyors of Milk	....	....	....	....	857

made up as under :—

Purveyors from shops	....	....	....	....	743
Producers (dairymen or cow-keepers)	....	....	....	....	37
Purveyors from vans	....	....	....	....	47
Purveyors resident outwith the City but registered to					
Purvey milk within it from vans on streets	....	....	....	....	25
Purveyors from shops or milkhouses together with					
vans on streets	....	....	....	....	42



*Milk (Special Designations) Order (Scotland), 1930.*—In terms of this Order there are licensed :—

2 Producers of Pasteurised Milk and  
219 Retail Sellers thereof.

A total of 221, as against 227 last year, and under the same Order :—

1 Producer of Grade A. (T.T.) and Certified Milk,  
3 Dealers in Grade A. (T.T.) Milk, and  
2 Dealers in Certified Milk.

There are 11 cowsheds where milk cows are kept, exempt from Registration, under Section 22 of the 1914 Act “ From which a person sells milk only in small quantities and for their own consumption to persons in his employment or to neighbours.”

The usual number of cows kept in these 11 cowsheds range from 1 to 4, and the premises may be looked upon as answering the purpose.

Within the Registered Byres there are 641 milk cows stalled.

To Dairies and Byres there have been 484 visits and 4,261 to shops or premises of Purveyors of Milk.

So far as we are able to ascertain from systematic inspection the requirements of Articles 5 to 16 of the Milk and Dairies (Scotland) Order, 1925, are generally being complied with, with the exception of the instances hereinafter mentioned.

*Article 12.*—Use of vessels belonging to another person without the consent of the owner.

A contravention of this Article was discovered by one of the Sampling Officers in the course of his duties. The delinquent was reported to the Procurator-Fiscal, and on coming before the Sheriff was admonished.

During the early part of the year a good deal of trouble was experienced owing to a Cattleman selling the Milk for human consumption obtained from cows kept in lairage awaiting sale. These premises were entirely unsuited for the nature of the trade of a Dairy-keeper, and for which he was not registered in terms of the Milk and



Dairies (Scotland) Act, 1914. He was brought before the Sheriff and a fine of 40/- imposed.

Following on this prosecution the receiver or purchaser of the Milk was dealt with *inter alia* in terms of :—

The Milk and Dairies (Scotland) Act, 1914, and  
Milk and Dairies (Scotland) Order, 1925, and fined 60/-.

The trade had been conducted in a very surreptitious manner, the vessels used and even the caps of the bottles bearing the name of a local registered firm of repute.

The **Dairy Premises and Cowsheds** have been maintained in quite a satisfactory manner. The following noteworthy alterations and repairs were carried out during the year :—

*5 Fairfield Road.*—At these dairy premises a wash-house complete with all necessary fittings, boiler, tubs, water laid on, and proper drainage were provided, and the court laid in cement concrete and roofed over. It was found that the roofing darkened the south byres—this was remedied by the insertion of extra roof lights. A small addition to the lairage was carried out on the north-east side of the building and made suitable for four cows. The premises carry their full complement of 30 cows.

*34a Forfar Road.*—All cows disposed of and the premises (still registered) conducted as a dry dairy.

*Trottick Mains.*—A new cowshed was erected at this Hamlet following repeated demands by this Department. The accommodation conforms with all modern requirements and can stall 23 cows. Automatic drinking bowls are provided for each beast. The place is airy and well ventilated and capable of easy cleansing.

*92 Americanmuir Road.*—Improvements here were the heightening of the walls of the cowshed by 2 feet 6 inches, the central passage extended to 6 feet 10 inches, the dungstance and scalding-house improved.

*306 Strathmore Avenue.*—The cowshed in connection with this dairy business has been rebuilt. On the night of September 14th, about 10 p.m., the roof of the original cowshed collapsed completely. It is difficult to account for this untoward happening as there was neither warning nor indication of any structural weakness. There

were 13 cows in the byre at the time and apart from broken skin on hindquarters no great injuries were sustained.

*517 Strathmartine Road.*—This establishment was sold off in the beginning of the year and the registration withdrawn by the occupier. The cowshed was in poor repair and the occupier aged and without proper assistance, so its withdrawal is no great loss.

*176 Liff Road, Lochee.*—These premises, totally unsuitable for nature of the trade, and referred to in my Report for last year, have been discontinued as a dairy and the whole of the stock and equipment disposed of.

### Food Inspection.

FOODSTUFFS ARRIVING AT THE PORT OF DUNDEE, EITHER DIRECTLY FROM ABROAD OR BY COASTWISE TRAFFIC.

The following two tables show the kind and quantity of foods arriving by waterway at the Port during the year.

The total of 69,325 tons 17 cwts. 3 qrs., as against 67,372 tons 5 cwts. 0 qrs. last year, and 78,423 tons 19 cwts. 0 qrs. in 1929.

TABLE No. I.

Shows the foodstuffs arriving coastwise at the Port by steamers plying between Dundee and the Ports of London, Hull, Liverpool, Aberdeen, Newcastle, Belfast, Southampton, Leith, &c.

	Tons.	Cwts.	Qrs.
Bacon and Ham ....	59	0	0
Bran ....	62	10	0
Butter ....	297	16	2
Cakes, Shortbread, Biscuits, &c.....	2	19	0
Cereals ....	119	10	1
Cheese ....	398	19	2
Chemical Food ....	10	16	2
Cocoa and Cocoa Beans ....	211	11	1
Cocoa Butter ....	41	4	2
Cocoanuts, Coconut Stearine, and Des- iccated Coconut ....	64	19	1
Coconut Oil ....	9	7	2
Coffee ....	45	15	2

	Tons.	Cwts.	Qrs.
Confectionery .. ....	589	14	1
Cordials ....	5	7	1
Corn Flour ....	2	4	0
Cream of Tartar ...	33	6	0
Cream (Tinned) ....	0	1	1
Custard Powder ...	0	13	2
Eggs ....	36	17	0
Eggs (Tinned) ....	0	0	1
Fish ....	1	0	0
Fish (Tinned) ....	212	2	1
Flour ....	9,145	16	1
Fruit ....	1,264	2	3
Fruit (Dried) ....	625	1	2
Fruit (Pulp) ....	112	13	2
Fruit (Tinned) ....	800	5	3
Glucose ....	473	14	2
Herrings (Cured) ....	26	5	1
Jam, &c. ....	0	1	2
Lard and Lard Compound .....	720	19	1
Macaroni ....	9	19	2
Margarine ....	899	14	0
Meat Extract ....	44	11	3
Meat (Tinned) ....	424	1	1
Milk (Dried) ....	1	11	0
Milk (Tinned) ....	324	5	1
Nuts ....	25	0	1
Peas, Beans, &c. ....	234	0	1
Pickles, Spices, Condiments, and Sances	62	6	1
Preserves ....	191	3	3
Rice ....	78	4	1
Semolina ....	0	3	0
Soup (Tinned) ....	8	0	1
Sugar ....	1,065	6	2
Sugar Beet Pulp .....	303	7	2
Syrup ....	589	19	3
Tapioca ....	20	13	0
Treacle ....	454	3	1
Vegetables ....	943	1	3
Vegetables (Tinned) ....	99	18	1
Vinegar ....	50	13	2
	21,205	0	0

TABLE No. II.

Shows the amount and kind of foods arriving direct from abroad.

	Tons.	Cwts.	Qrs.
Bacon and Ham ....	29	0	0
Cocoa and Cocoa Beans ....	2	10	0
Butter ....	6	12	0
Cereals ....	50	8	0
Cheese ....	158	18	1
Cocoa Butter ....	47	14	0
Cocoanuts, &c. ....	64	1	1
Confectionery ....	18	4	3
Cream (Sterilized) ....	1	4	1
Flour ....	9,543	16	2
Fruit ....	51	10	3
Fruit (Dried) ....	12	4	1
Fruit (Pulp) ....	417	11	3
Fruit (Tinned) ....	0	6	0
Glucose ....	637	8	1
Lard ....	88	13	0
Meat (Tinned) ....	12	18	2
Milk (Tinned) ....	491	8	3
Milk (Dried) ....	7	6	0
Nuts ....	1	2	0
Nut Oil ....	3	2	3
Peas, Beans, &c. ....	394	9	0
Preserves ....	1	0	0
Rice ....	182	8	1
Soups (Tinned) ....	4	15	0
Sugar ....	34,156	9	2
Tapioca ....	33	3	0
Vegetables ....	1,619	19	0
Vegetables (Tinned) ....	82	13	0
	48,120	17	3

On no occasion was it found necessary to deal with or seize any of the food arriving in the City by waterway.

#### Fish Inspection at the Fish Market, Carolina Port.

Periodical visits of inspection are made to the Fish Market at times when fish is offered for sale, when the premises, fish boxes, and

fish cleaning apparatus are inspected and the fish examined. There was no cause for official interference during 1931. In the event of any fish coming into the market for sale which is unfit for food or where there is any suspicion as to their freshness, the Official at the Market notifies this Department so that examination may be carried out without delay, thus ensuring a wholesome fresh fish supply.

### **Public Health (Meat) Regulations (Scotland) 1930, Article 13.**

By the above Regulations " No person other than a person keeping open shop for the sale of meat or meat food products shall, by himself or by any person employed by him, sell or offer or expose for sale any meat or meat food product from any cart or other vehicle or from any basket, barrow, booth or stance unless he holds a certificate from the Local Authority of the district in which the accommodation used by him for the storage of meat or meat food products is situate approving such accommodation."

Only one certificate of approval is in force, which relates to premises occupied by the Dundee Ice and Cold Storage Co., Ltd., and that in conjunction with the business of butcher carried on from a booth or stall erected in Shore Terrace on Fridays and Saturdays in each week.

### **Public Slaughter-Houses and Dead Meat Market.**

The " Clearing-House System " still prevails here in connection with all meat intended for human consumption. By this method the whole of the meat arriving in the City must first be submitted to the qualified Meat Inspector at the Slaughter-House. We are therefore assured of a satisfactory meat supply, free from any unsoundness or disease.

The Public Slaughter-Houses and Dead Meat Market are meantime undergoing extensive alterations and additions, which, when finished, will place the Dundee premises on a par with any in the country.

### **Food Inspection (Shops, Stalls, Barrows, Etc.).**

On 66 occasions it was necessary to seize food as unfit for human consumption. The undernoted table indicates the nature and quantities :—



## ARTICLES OF FOOD SEIZED.

Articles.	Where Seized.	Quantities or Weights.				Reasons for Seizure.
		Tons.	Cwts.	Qrs.	Lbs.	
Meat (tinned) ....	Shops or stalls, or barrows on streets, or food or wholesale stores, or railway stations.	0	14	2	8	Decomposition, etc.
Fish (tinned) ....		0	0	1	23	
Fish (dried) ....		0	6	1	0	
Fruit (tinned) ....		0	15	0	27	
Vegetables (tinned) ....		0	10	0	15	
Spiced Ham (tinned) ....		0	3	3	9	
Mutton (tinned) ....		0	1	3	20	
Soup (tinned) ....		0	0	2	13	
Cod ....		0	0	2	0	
Fruit ....		0	0	2	7	
Fruit (dried) ....		0	0	0	25	
Liquid Eggs (frozen) ....		0	0	3	14	
Potatoes ....		1	18	0	0	
Milk (tinned) ....		0	0	0	12	
Veal (tinned) ....		0	0	3	0	
Tongues (tinned) ....		0	1	2	14	
Rabbit (tinned) ....		0	6	0	6	
Pork (tinned) ....		0	0	0	6	
Jellied Veal ....		0	0	1	14	
Fruit Pulp (tinned) ....		0	1	0	18	
Tinned Ham and Tongue		0	0	2	18	
Chicken and Ham Roll		0	0	1	8	
Pork and Beans (tinned)		0	0	0	15	
Spiced Tongue (tinned)		0	0	0	12	
Tomato Puree (tinned)		0	0	3	17	
Cocoa and Milk (tinned)		0	0	0	15	

The condition as to cleanliness of the premises and vehicles was also supervised—8,676 visits having been made.

A glance at the above list will reveal that tinned foodstuffs again form the largest part of the food destroyed.

This part of our activities is by no means trivial—a suspicious shopkeeper or wholesale warehouseman fearing things are not just as they might be usually 'phones or writes asking an inspector to call and give his verdict,—thus, in the cases where the food is really bad and requiring destruction, the public are safeguarded.

In addition to the potatoes destroyed, as mentioned above, a parcel of nearly 4 tons was examined but was not destroyed on the implicit

understanding that the potatoes would not be put to any other use than that of pig-feeding.

Certificates in nearly every instance were issued. In some cases the proprietors do not require a certificate, merely desiring this Department to destroy the stuff in question.

### **Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928, etc.**

From time to time visits are paid to the various shops throughout the City to see that the terms of the above Acts are being complied with. The proper marking of imported tomatoes gave the Inspectors most trouble, particularly during the season when "Home" varieties were not available. The difficulty lies with the shops carrying on a mixed trade, who only occasionally carry a stock of tomatoes. In terms of Section 4 (1) of the 1928 Act and Article 7, Agricultural Produce (Grading and Marking) (Eggs) (Scotland) Regulations, 1929, one registration has been granted by the Local Authority.

### **Rag Flock Acts, 1911-1928.**

During the year four samples of Rag Flock were taken in the premises of bedding factories, etc., and submitted to the Public Analyst, who reported on the samples as under :—

One sample yielded	....	....	6.60 parts.
One sample yielded	....	....	10.00 parts.
One sample yielded	....	....	8.30 parts.
One sample yielded	....	....	8.30 parts.

All of which conformed with the demands of the Acts, i.e. being well within the permissible 30 parts chlorine per 100,000 parts flock.

### **The Public Health (Preservatives, Etc., in Food) Regulations (Scotland) 1925 to 1927.**

Contraventions of the above Regulations led to the appearance before the Sheriff of five butchers :—

- 3 were fined 40/- for selling Mince,
- 1 was fined 30/- for selling Sausages, and
- 1 was fined 30/- for selling Lorne Sausage,

all found to contain, in varying degree, added preservative outwith the prescribed limit.

### Food and Drugs (Adulteration) Act.

Undernoted is given a statement of the number of samples purchased under these Acts during the last ten years :—

		Certified to be		
		Purchased.	Genuine.	Adulterated.
1922	....	671	650	21
1923	....	669	634	35
1924	....	684	659	25
1925	...	693	661	32
1926	....	666	645	21
1927	....	675	640	35
1928	....	669	637	32
1929	....	674	630	44
1930	....	635	600	35
1931	....	654	618	36

Synopsis of the samples purchased this year :—

I.—Samples taken in the ordinary course, with a view of following up by prosecution, if necessary, should adulteration be discovered.

				Purchased.	Certified to be	
					Genuine.	Adulterated
Sweet Milk ....	....	....	....	69	64	5
Do. (Pasteurised) ....	....		....	6	6	0
Do. (Sterilised) ....	....		....	1	1	0
Do. (Certified) ....	....		....	6	6	0
Do. (Grade A.T.T.) ....	....		....	5	4	1
Margarine ....	....	....	....	11	11	0
Coffee ....	....	....	....	8	8	0
Whole Rice ....	....	....	....	8	8	0
Ground Rice ....	....	....	....	2	2	0
Ground Cinnamon ....	....	....	....	1	1	0
Lard ....	....	....	....	6	6	0
Sausages ....	....	....	....	11	9	2
Sausages (Lorne) ....	....	....	....	6	5	1
Pot Barley ....	....	....	....	3	3	0
Mince ....	....	....	....	8	5	3
White Pepper ....	....	....	....	12	12	0
Cream of Tartar ....	....	....	....	9	9	0
Ground Ginger ....	....	....	....	6	6	0
Luncheon Sausage ....	....	....	....	1	1	0
Tapioca ....	....	....	....	1	1	0
Butter (Salt or Fresh) ....	....	....	....	5	5	0
Total				185	173	12

II.—The following samples were taken in terms of Section 8 (1) (c) of the 1928 Act.

	Taken.	Genuine.	Adulterated.
Sweet or Fresh Butter ....	5	5	0

III.—The undernoted “ test ” samples were purchased or taken :—

	Purchased or Taken.	Certified to be Genuine.	Adulterated
Sweet Milk ....	150	139	11
Do. (Pasteurised) ....	37	32	5
Do. (Sterilized) ....	11	11	0
Do. (Grade A.T.T.) ....	22	21	1
Milk (Tinned) ....	19	19	0
Tapioca ....	10	10	0
Margarine ....	26	26	0
Coffee ....	7	7	0
Whole Riee ....	12	12	0
Ground Cinnamon ....	8	7	1
Lard ....	6	6	0
Sago ....	1	1	0
White Pepper ....	23	23	0
Barley ....	12	12	0
Cream of Tartar ....	16	16	0
Ground Ginger ....	7	7	0
Baking Soda ....	6	6	0
Ground Riee ....	9	9	0
Vinegar ....	2	2	0
Flour ....	7	7	0
Oatmeal ....	6	6	0
Butter (Fresh or Salt) ....	18	18	0
Tea ....	12	12	0
Sausages ....	12	11	1
Lorne Sausage ....	6	4	2
Eucalyptus Oil ....	1	1	0
Almond Oil ....	1	1	0
Lemon Peel... ....	1	1	0
Orange Peel ....	1	1	0
Minee ....	7	4	3
Ice Cream ....	1	1	0
Cheese ....	3	3	0
Saucec ....	3	3	0
Black Pepper ....	1	1	0
<hr/>			
Total ....	464	440	24
Add Table I. ....	185	173	12
Add Table II. ....	5	5	0
<hr/>			
Total ....	654	618	36

With a population of 176,006 this works out to 3·71 samples for every 1,000 persons, as against 3·81 last year.

The average milk fat of the samples taken each month was as follows :—

		No. of Samples.			Average Fat Content.		
		Official.	Test.	Total.	Official.	Test.	Total.
January	....	10	12	22	3·47	3·61	3·54
February	....	10	12	22	3·50	3·45	3·47
March	....	8	16	24	3·59	3·47	3·51
April	....	9	13	22	3·49	3·46	3·47
May	....	7	16	23	3·49	3·46	3·47
June	....	7	16	23	3·44	3·67	3·59
July	....	—	24	24	—	3·53	3·53
August	....	10	13	23	3·37	3·83	3·62
September	....	4	20	24	3·45	3·66	3·62
October	....	8	12	20	3·72	3·52	3·60
November	....	4	24	28	4·06	3·52	3·60
December	....	9	12	21	3·48	3·65	3·57
		86	190	276	3·53	3·57	3·55

The lowest milk fat recorded this year in official and test samples was 2·02 per cent. and the highest 6·06 per cent. The number of samples with milk fat below 3 per cent. was 6 and the number with milk fat of 4 per cent. and over was 28.

Test samples of the milk as supplied to King's Cross Hospital, the Infant Hospital, Broughty Ferry, and Ashludie Sanatorium were submitted on 30 occasions, and the results as declared by the City Analyst were as follows :—

*King's Cross Hospital.*

18 samples of Grade "A." T.T. Milk averaged 3·87 per cent. of fat.

6 samples of Sweet Milk averaged 3·56 per cent. of fat.

The highest fat content in the Graded Milk was 4·40 per cent. and the lowest 3·08 per cent., while the figures of Sweet Milk were 3·76 per cent. and 3·30 per cent. respectively—the grand average over the 24 samples taken at this Hospital being 3·79 per cent.

*Infant Hospital, Broughty Ferry.*

4 samples of Grade "A." T.T. Milk were tested and reported on as follows :—

The highest fat content showed 4·40 per cent. and the lowest 3·70 per cent.—the average over the 4 samples was 4·05 per cent.



*Ashludie Sanatorium.*

2 samples of Sweet Milk as supplied to this Institution were tested; in one case the milk fat was returned as 3·58 per cent. and in the other 3·10 per cent.

There were five Official Samples of Sweet Milk certified to be adulterated, three of the sellers thereof were sternly admonished. One was prosecuted—the Sheriff finding the accused technically guilty, but at the same time recording no conviction, and in the last instance the contravention was included in a prosecution embracing other charges under the Milk and Dairies (Scotland) Order, 1925.

In the case of the sample of Grade A.T.T. Milk discovered not to be genuine, a warning was issued, which, it is hoped, has had a salutary effect.

**Margarine, Etc.**—There were 572 inspections made to the various shops or premises in the City where Margarine, Margarine Cheese, or Milk Blended Butter were offered for sale.

**Wholesale Dealers.**—At the end of the year the premises registered where the business of a Wholesale Dealer in Margarine, Margarine Cheese, or Milk Blended Butter is carried on numbered 42.

**Re-Worked Butter.**—Five factories—all duly registered—where by way of trade butter is blended or re-worked were found to be suitable and satisfactory. Five samples of Re-Worked Butter were taken during the year and certified by the Public Analyst to conform to the Statute.

Mr Andrew Dargie, B.Sc., A.I.C., Public Analyst, kindly supplies the following interesting figures and particulars :—

*Note.*—The figures given by the City Analyst are for a year from November, whilst the figures of the Sanitary Inspector are for a year from 1st January.

“During the year 305 samples of Sweet Milk were examined. The average quality of the public milk supply as deduced from these analyses was as follows :—

Water ....	....	....	....	....	....	87·69
Total Solids ....	....	....	....	....	....	12·31
Fat ....	....	....	....	....	3·56	
Non-Fatty Solids ....	....	....	....	....	8·75	100·00

The average quality is consistent with that of previous year. The frequencies of distribution of Butter Fat and Non-Fatty Solids are as follows :—

Butter Fat.	Frequencies.		Non-Fatty Solids.	Frequencies	
Up to 2·69%	....	3	....	Up to 7·99%	.... 3
2·70—2·79	....	2	....	8·10—8·19	.... 3
2·80—2·89	....	2	....	8·20—8·29	.... 3
3·00—3·09	....	11	....	8·30—8·39	.... 5
3·10—3·19	....	19	....	8·40—8·49	.... 1
3·20—3·29	....	17	....	8·50—8·59	.... 55
3·30—3·39	....	33	....	8·60—8·69	.... 51
3·40—3·49	....	37	....	8·70—8·79	.... 56
3·50—3·59	....	43	....	8·80—8·89	.... 53
3·60—3·69	....	36	....	8·90—8·99	.... 45
3·70—3·79	....	31	....	9·00—9·09	.... 16
3·80—3·89	....	22	....	9·10—9·19	.... 6
3·90—3·99	....	16	....	9·20—9·29	.... 8
4·00—4·09	....	11			
4·10—4·19	....	9			
4·20—4·29	....	4			
4·30—4·39	....	3			
4·40 and over	....	6			
		<hr/> 305			<hr/> 305

These frequencies show that 22 samples were below the presumptive standards, 7 below 3·00 per cent. Butter Fat, and 15 below 8·50 per cent. Non-Fatty Solids. It is presumed therefore, until the contrary is proved, that these samples were not genuine by reason of the abstraction of Fat or the addition thereto of water.

#### Butter and Margarine.

30 samples of Butter and 32 samples of Margarine were examined. All were genuine and conform to Preservatives Regulations. The amounts of water contained in those samples were distributed as follows :—

	Butter.		Margarine.	
Below 10·00	....	—	....	1
10·00—10·99	....	—	....	1
11·00—11·99	....	—	....	6
12·00—12·99	....	2	....	2
13·00—13·99	....	5	....	7
14·00—14·99	....	13	....	13
15·00—15·99	....	10	....	2
		<hr/> 30		<hr/> 32

Average percentage of Water .... 14·51 per cent. 13·29 per cent.

All the Butters contained more than 12·00 per cent. of water and four exceeded 15·50 per cent.—namely, 15·61 per cent., 15·70 per cent., 15·82 per cent., and 15·95 per cent. respectively. Only one Margarine at 15·95 per cent. approached the limiting amount of 16 per cent. of water.

### Spices.

- 9 Cinnamon.
- 11 Ground Ginger.
- 33 White Pepper.
- 1 Black Pepper.

One Cinnamon contained 3·04 per cent. of sand and siliceous matter, which is 1·04 per cent. in excess of the arbitrary standard of 2·00 per cent., which is considered a generous allowance. The average amount of mineral matter (Ash) in the Cinnamons was 3·86 per cent.

The Ground Gingers were of normal composition and conformed to the Preservatives Regulations. The Ash or Mineral Matter in the White Peppers ranged from 0·56 per cent. to 2·01 per cent., the average of the 33 being 0·99 per cent. The single sample of Black Pepper was genuine.

### Whole Rice and Pot Barley.

19 samples were examined, of these 7 were free from Talc facing. The remainder were below the maximum limit of 0·50 per cent. Talc facing, and the average for the lot was 0·24 per cent. Some people still believe that the high polish and lustre of the whole rice is an indication of its purity and buy accordingly. A dull, pearly appearance does not appeal to the eye, but it is usually the genuine article. Pot Barley—16 samples were examined and found correct.

### Preservatives in Food.

15 samples of Mince and 36 samples of Sausages were examined during the year. The amounts of sulphur dioxide expressed in parts per million were as follows :—

	Mince.	Sausages.
Absent ....	5	6
Up to 99 parts	2	5
100 to 199 „	—	5
200 to 299 „	1	7
300 to 399 „	3	3
400 to 450 „	—	4
450 to 499 „	1	—
500 to 599 „	2	1
600 to 699 „	1	2
700 and over ....	—	3
	—	—
	15	36

The maximum amount of sulphur dioxide allowed is 450 parts per million. 4 Mince and 6 Sausages exceeded that amount and one other Mince was reported against as containing preservative during the prohibited period. One of the Sausages contained the huge amount of 2,082 parts sulphur dioxide per million.

### Full Cream Condensed Milks.

Four samples were examined and conformed to Regulations. The results of analyses are as follows :—

Butter Fat per cent.	Total Milk Solids per cent.
9·70	34·27
9·74	32·80
10·41	34·86
10·57	33·11
—	—
Average—10·11	33·76

### Machine Skimmed Condensed Milks.

15 of these were submitted for analysis. There is no standard for Butter Fat, but they are appended for reference. The range is from 0·16 per cent. to 0·80 per cent. The total Milk Solids should be not less than 26·00 per cent., all the samples conformed to that figure. The results are as follows :—

Butter Fat per cent.	Total Milk Solids per cent.
0·75	28·46
0·80	29·12
0·48	30·78
0·66	27·98
0·64	26·11
0·53	29·03
0·25	27·42
0·30	28·04
0·26	27·50
0·30	27·56
0·27	29·45
0·22	30·34
0·16	30·29
0·40	29·39
0·66	29·30
<hr/>	
Average—0·44	Average—28·72

120 other articles were examined, namely, Cream of Tartar, 24 ; Coffee, 13 ; Tea, 12 ; Lard, 12 ; Tapioca, 11 ; Ground Rice, 11 ; Flour, 8 ; Baking Soda, 6 ; Oatmeal, 6 ; Cheese, 3 ; Sauces, 3 ; Oils, 5 ; Various, 6.

Tea is not now exiseable and the onus of supervision rests on the local authorities. No foreign matter was found in any of the samples. All the other samples were found to be normal in composition and conformed to the Preservative Regulations.

It might be mentioned that there is no legal standard for fat in shredded suet, and until that time arrives the Society of Public Analysts have resolved that it should contain not less than 83 per cent. of fat. A less amount will indicate an excess of farinaceous matter.

### Departmental Committee on Food Law.

The most important milestone in the administration of the Food and Drugs Acts was the appointment of a Departmental Committee "to enquire into the workings of the law as to the composition and description of articles of food, other than milk, and to report what alterations, if any, in the law or its administration appears to be desirable."



Preliminary work was in full swing when the financial situation in September compelled the Committee to cease its deliberations. This is a regrettable fact as the present law is far from satisfactory. The Food and Drugs (Adulteration) Act, 1928, was merely a consolidating act and consequently all the faults and shortcomings of the previous acts were simply continued.

In the administration of the law there is much to be desired, divorcement from Public Health Acts and the multitude of Orders and Regulations are imperative. Definitions of "place of delivery" and "the nature, substance, and quality" of the article demanded are urgently required.

With the few exceptions of Butter, Margarine, Condensed Milk, and Dried Milk there are no legal standards to support the presumption of an inferior or deficient article of food. Standards may be fixed in a court of law from the evidence of experts, but these standards must vary according to local conditions.

At present there is no minimum limit to the amount of meat in Sausages, no maximum for sand or siliceous matter in Spices, no maximum for crude fibre in Black Pepper, no minimum percentage of fat in Cheese, Cream, or Ice Cream, no limiting amount of tin in Tinned Foods, no official standards for Jams and Jellies, and no standard in Malt and Meat Wines.

There is undoubtedly a *prima facie* case for a comprehensive and self-contained act to include definitions and standards for every article of food or drug. This will entail a tremendous amount of work on the committee and also on any advisory committee. The wish is that the financial position will allow the committee to resume its activities in the not distant future."

### Milk for Bacteriological Examination.

Samples were purchased or taken for Bacteriological examination as follows :—

Sweet Milk	....	....	....	....	....	56
„	(Pasteurised)	....	....	....	....	15
„	(Grade A, T.T.)	....	....	....	....	9
„	(Certified)	....	....	....	....	6
						—
						86

### Milk Supply—Inquiry.

The Sampling Officers procured 1,504 samples of milk on the lines set forth and recognised by certain Local Authorities taking part in an Inquiry into the Tuberculous Infection of the Milk Supply of Scotland

In Group A.—*Raw Milk* (excluding graded milk) samples taken on arrival either at Railway Stations or at consignees' premises .... 511

In Group B.—*Pasteurised Milk* (excluding Grade A pasteurised), so far as practicable taken at the cooler direct or from newly filled bottles .... 513

In Group C.—*Retailed Milk*—i.e. random samples bought over the counter either in bottles or from bulk 480

Altogether 1,590 samples were submitted to Professor W. J. Tulloch at the University College, Dundee, the duly appointed Bacteriologist. The result of his labours appear in the Annual Report of the Chief Medical Officer of Health.

In Group D.—*Graded Milk*—51 samples were purchased—19 of these being "Certified," while the remaining 32 were from Grade A (Tuberculin Tested) Milks. In accordance with the general instructions these samples were forwarded to the Hannah Dairy Research Institute, Ayrshire.

### Burial Grounds.

The following interments were made at the undernoted Burial Grounds within the Burgh during the year :—

Eastern Necropolis	....	....	....	....	1,408
Western Necropolis	....	....	....	....	1,021
Western Cemetery (Perth Road)	....	....	....	....	164
Barnhill Cemetery	....	....	....	....	159
Parish Church Burying-Ground (Broughty Ferry)	....	....	....	....	7
Constitution Road Burying-Ground	....	....	....	....	1
St. Luke's Episcopal Church, Downfield	....	....	....	....	—
New Mains Cemetery	....	....	....	....	20
Old Mains Cemetery	....	....	....	....	—
Total					2,780

To these places of sepulchre no special attention has been required by this Department, no complaints being received thereanent.

### Interments.

UNDER SECTION 69 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

58 applications were made for the burial of persons declared to be destitute or whose friends were not in a position to meet the expenses incurred in interments—49 of these were granted and in 9 cases other arrangements were made for the burial. Of the 49 persons buried at the expense of the Local Authority, 13 were adults, 16 were juveniles, and the remaining 20 were still-born children. Towards the debit against the City only £1. 17s. 6d. was recovered and this sum was handed over to the City Collector.

### Smoke Nuisance.

In May of this year the Scottish Branch of The National Smoke Abatement Society held their Annual Conference in Dundee. Smoke Nuisance has always engaged the close attention of Sanitary Inspectors, and I think most of them will subscribe to my saying, being sufficiently important to warrant a Conference, it should help to waken the minds of the populace to the fact that the Smoke Nuisance part of a Sanitary Inspector's duties is a very real and grave one, and not merely a bee in the bonnet of the local Inspector.

There was a large and representative gathering at the Conference held here and many interesting papers were read and thereafter discussed by the delegates—a full report of which appeared in the local and other papers.

Our desire is to obtain a smokeless atmosphere—how is it to be procured ?

Take the domestic side of the question, gas and electricity are acceptable alternatives for coal. That they are a dearer means of generating heat, etc., may be, but surely an increased use of these commodities would cheapen them. Again, some people cling to the coal fire from sentiment ; others argue gas and electricity do not possess the same heating power. Our forefathers cherished some fallacious ideas, and now we accept as indispensable, things upon which they looked askance. Let us be bold enough to take the step of changing over and have the generations to come speak of our wisdom and courage, rather than pitying us in our ignorance. A substantial reduction in the price of gas for heating and cooking would yield a handsome return in lessening the incidence of, and the mortality from, diseases of the chest and other ailments.

This is work better worth doing than providing ultra-violet rays to cure diseases caused by neglect of natural law. The public must be taught the value of sunlight, the ways of using it to conquer the diseases of darkness, and especially the proper furnishing of our houses so as not to eclipse the light of life.

Regarding washing-houses attached to tenements and other properties, usually the smoke from the chimney of these premises enters the air on or about a level with the first floor houses, which, under certain wind conditions, will be more or less smoke polluted. Generally, also, washing-house fires are fed with all sorts of combustible matter, often specially reserved for this particular purpose, and frequently very undesirable fuel. The gas boiler changes all this, and, not filling the air with smoke and smuts, does not tend to make the clothes look as if they require another wash before they are dry. At properties where new boilers are needed we advocate a gas boiler being installed.

Gas and electricity are obsequious servants, always at hand, and a fuller utilisation of them would greatly reduce the smoke nuisance, besides saving the housewife's valuable time, and to save time is to lengthen life.

Industrially, smokelessness does not actually mean idleness. Progressive and up to date firms find electricity and smoke-consuming appliances can help them and also render smoke practically unnecessary. A skilful stoker takes a pride in seeing his chimney-top clear and strives to maintain it so.

A glance at the facades of buildings reveals the terrible ravages, not so much of time, but of smoke; if this is the action on stone, what possible effect can smoke have on the animal and vegetable kingdoms?

During the year 25 observations were taken (24 of 1 hour's duration and 1 of half-an-hour), and in connection therewith 21 letters were sent.

Smoke Nuisance is avoidable, for, when a notice is served on an offender, an improvement, if not a temporary cessation, is apparent. Perhaps the transgressor thinks after having been notified, our eye is diverted from his chimney, and soon reverts to the old way of working. A stronger protest, however, making mention of legal action shows his mistake.

Taking Smoke Nuisance as a whole it is needless and no one has time to expend on the unnecessary.



### **Shops Acts.**

In the carrying out of the various enactments in connection with shops 3,210 inspections were made by the Officers, who discovered 344 contraventions. In addition to the usual inspections, 49 hours of street patrol duty were carried out. Complaints numbering 25 were made at the office, mainly in connection with shops remaining open after the usual closing hours or not obeying the weekly half-holiday orders. Included in the complaints received were a number in regard to Hairdressers carrying on trade on Sundays in contravention of the terms of the Hairdressers' and Barbers' Shops (Sunday Closing) Act, 1930. Special attention was given to this matter and all hairdressers and barbers concerned within the City were warned that the practice must cease, and with apparent good results.

In terms of the Shops (Hours of Closing) Act, 1928, 8 prosecutions were instituted at the Sheriff Court, the result of which were as follows :—

5 each were fined 15/-.

1 was fined 10/-.

The proceedings were departed from in two instances.

In regard to the fines against infringements of this description, I would again draw attention to the fact that the expenses incurred in connection therewith amount to a greater sum than that recoverable. In the case of the 6 cases successfully brought before the Court the fines amounted to £4. 5s., while the expenses were £7. 1s., a debit chargeable to the ratepayers of £2. 16s.

*Places of Public Refreshment* numbering 224 have been periodically inspected and found to comply with the Bye-laws respecting them in so far as coming within our jurisdiction.

### **Theatres and Cinemas.**

Among the many duties which this Department has to perform is that of ensuring the above premises being kept in a proper state of cleanliness. It is our care to see that efficient and proper ventilation is provided, also requisite Water Closet and Lavatory facilities for public and performers.

Throughout the year 158 visits of inspection were made and these places may be looked upon as being maintained in quite a satisfactory condition.



### Offensive Trades.

Trades falling within this category are carried on in premises situated as follows :—

Old Air Station, Stannergate Road—Tallow Melter.

Marine Parade—Tanner.

1 Park Street—Tanner.

At Public Slaughter-Houses, East Dock Street (Private)—Cut Cleaner (1) and Hide Factors (2).

At Public Slaughter-Houses, East Dock Street (Corporation)—  
(a) Slaughterer of Cattle ; (b) Tripe Cleaner ; (c) Tallow Melter; and (d) Blood Boiler.

and to them 17 visits were made, when everything was found to be satisfactory and calling for no official action.

In May an application was made to conduct the business of a Tallow Melter in premises near the centre of the City. So far as the buildings and plant proposed to be used no objection could be raised and were reported accordingly to the Local Authority. After advertisement of the proposed establishment of the trade in terms of Section 32 of the Public Health (Scotland) Act, 1897, objections were received by the Local Authority and a deputation in connection therewith heard at a Meeting of the Public Health Committee. The matter was then deferred for further consideration. Eventually the application was withdrawn—other means having been found for the disposal of the Tallow.

### Rats and Mice (Destruction) Act.

In view of the fact that continuous war is waged on rats and mice, it was not deemed necessary to participate in the special Rat Week in the early part of the year as suggested by the Department of Agriculture for Scotland. Unremitting efforts in destruction are necessary if any degree of success is to be obtained at all, and it is in this manner the matter is prosecuted throughout the year.

In all complaints dealt with, the occupiers of the properties concerned are notified by printed circular of their responsibility to take such steps as are necessary and reasonably practicable for the destruction of the vermin. At the same time the owner or agent is informed of such infestation and any structural defects, rat runs or cuttings pointed out to him. Generally a rat-catcher is employed, and when the rodents have been exterminated tradesmen execute any repairs necessary.

A complaint was received that a house in the west end of the City was over-run with rats and prominence was given to it by a statement of a child having been bitten. The matter was taken up with the proprietor of the property when, after efforts covering a period of four weeks, the premises were finally rid of the vermin, which, however, were found to be not quite so numerous as had been stated by the complainer.

A secondary complaint arising from rats, when 2 houses were infested with beetles, came under attention. On the floors being lifted to ascertain the source of the pests a rat run was discovered under the hearthstone with nests of beetles around the carcass of a rat.

A rat occasioned much expense in a house where smells were found very nauseant and evoking strong complaints by the occupants. In the hunt for the cause, finally located below a hearthstone where a dead rat was found, four different tradesmen were employed, i.e. plumber, joiner, range-builder, and a mason—all this because of a broken ventilator grating on the outside wall whereby the rat gained access.

A “stranger within our midst,” identified as belonging to the Musk Rat family, was caught near an estate on the outskirts of the City. Enquiries have not elicited any infestation by this class of rat ; it would appear the one caught was a lone straggler.

### Port Inspection.

During the year ended 31st December 1931 the number of ships arriving at the Port was 1,093, a similar figure to that for the year 1930. Of these, 298 came from Foreign Ports and 853 visits were paid to them. The number of vessels arriving direct from Foreign Ports was 89, while 209 called at Ports in this Country before reaching Dundee. In 77 cases vessels arrived from Infected Ports—7 direct and 70 indirect.

The *Cargoes* mainly consisted of Jute, Gunnies, Linseed, and Desiccated Cocoanut from India and Ceylon ; Esparto Grass, Phosphates, Pyrites, Cork, and Oilcake from Mediterranean Ports ; Timber and Flax from Baltic Ports ; Food-stuffs, Fancy Goods, Fertilizers, Moss Litter, Paper, and Steel from other Continental Areas, and Food-stuffs, Pitch, Ochre, etc., from U.S.A. and Canada.

Six cargoes of *Sugar* for refining purposes arrived throughout the year—5 from West Indies and 1 from South Africa. The quality

of the sugar was normal and only in one case (where the sugar had lain in store for some time before shipment) did the bags show appreciable signs of rot and damage.

An important addition to the imports at the Port resulted from the enterprise of a large local firm in the commencement of a new industry situated on the site of the old Caledon Shipyard, where plant of the most modern kind was erected for the production of Bitumen, etc. Four cargoes of crude oil or crude oil residue arrived at the Port since the commencement of this new trade in May, and it is gratifying that this is likely to be maintained in the future.

*Dundee a Conference Port.*—An important alteration occurred as from the 1st July 1931, when after repeated local representations the Conference Lines included Dundee in their list of Conference Ports. Formerly it was necessary for goods being sent to India to be railed to Glasgow for shipment—now goods are shipped direct at this Port on regular liners for India and the East. This new order of things removed a serious handicap to the trade of the City.

*Nuisances, Etc.*—During the inspection of vessels from Foreign Ports 201 nuisances and defects were brought under the notice of Officers in charge of ships, who, without exception, took immediate action to have remedial measures applied. No outstanding nuisance or serious defect falls to be recorded, those found generally comprising :—dirty forecastles, messrooms, and galleys ; choked or defective water closets and urinals ; foul water discharging on to the quay, etc.

Strange visitors in the shape of *Locusts* arrived with a ship carrying a cargo of esparto grass from North Africa at the latter part of the year. These were observed on the removal of the covers from the large deck cargo, having “ joined the ship ” opposite the coast of Portugal to which point they had been blown from their usual haunts by strong southerly gales. They were mostly in a semi-dead condition owing to the cold weather prevailing and gave little or no cause for alarm.

In terms of The Public Health (Deratisation of Ships) Regulations (Scotland) 1929, and Article 28 of the International Sanitary Convention of Paris of 1926, 24 Deratisation Exemption Certificates were issued in respect of ships, which, after inspection, were found to be free from evidence of rats or the rat populations was maintained at a minimum by rat destruction efforts on the part of crews, etc. In all cases where slight evidence was found of rat infestation trapping was insisted on—this continuing over the period of the ship's stay at the Port and daily visits were made to see that this was being carried

out. In this connection 54 traps were purchased from local stores. Throughout the year 103 rats were caught on board and these were destroyed by burning in the ships' furnaces.

The various sheds and warehouses within the precincts of any Docks undoubtedly form good harbourage and feeding grounds for rats, and it is an important point in the maintenance of these places that strenuous endeavours be made to keep the pest under control. The Harbour Trustees at this Port are alive to this fact and an experienced rat-catcher is included on their staff, and who continually is waging war against the vermin, which, if left uncontrolled, would cause immense damage amounting to thousands of pounds amongst the multifarious stocks temporarily warehoused within the sheds, etc., at the Docks. It is gratifying to learn that during the year his efforts have resulted in a kill numbering some 505, which, if left undisturbed would undoubtedly have multiplied to a really alarming extent. The employment of a permanent rat-catcher is an undoubted necessity if these depredators are to be kept down within the precincts managed by the Trustees.

Metal rat-guards or tarred canvas were fixed to the moorings of all ships arriving from infected ports, while 96 notices with special instructions to Masters, in terms of the Rats and Mice (Destruction) Act, 1919, were issued to the Officers in charge of ships.

### **The Parrots (Prohibition of Import) Regulations (Scotland) 1930.**

Only in two instances was it necessary for the terms of the above Regulations to be applied. In both cases written undertakings were received that the birds were not to be landed here.

### **The Public Health (Port Administration, Infectious Diseases) Regulations (Scotland) 1930.**

10 cases of sickness were reported and were dealt with as follows :—

- 3 were visited by private practitioners and treated on board.
- 3 were removed to Dundee Royal Infirmary.
- 1 was removed to Eastern Hospital for observation.
- 2 were admitted to the Public Health Institute, and

one case of chicken-pox was removed to King's Cross Hospital, the crew's quarters thereafter being fumigated, and the bedding, etc., disinfected.

